

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

IN THE MATTER OF DEWEY LOEFFEL
LANDFILL SUPERFUND SITE

General Electric Company and SI Group, Inc.

Respondents,

Proceeding Under Sections 104, 107 and 122 of
the Comprehensive Environmental Response,
Compensation, and Liability Act, as amended, 42
U.S.C. §§ 9604, 9607 and 9622.

US EPA Index No. CERCLA-02-2013-2008

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT
FOR REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
OF LANDFILL AND GROUNDWATER

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent for Remedial Investigation and Feasibility Study ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and by General Electric Company ("GE") and SI Group, Inc. ("SI") ("Respondents"). The Settlement Agreement concerns the preparation and performance of a remedial investigation and feasibility study ("RI/FS") relating to the former landfill and groundwater at the Dewey Loeffel Landfill Superfund Site (the "Site"), located in the Town of Nassau, Rensselaer County, New York, and the reimbursement of Past Response Costs and Future Response Costs, as defined below.
2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9604, 9607 and 9622. This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on April 15, 1994 and May 11, 1994, by EPA Delegation Nos. 14-14-C and 14-14-D, respectively. This authority was redelegated by the Regional Administrator of EPA Region 2 to the Director of the Emergency and Remedial Response Division in Region II on November 23, 2004.
3. In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), EPA notified the U.S. Department of the Interior and the National Oceanic and Atmospheric Administration on July 15, 2011, of negotiations with potentially responsible parties regarding the release and threat of release of hazardous substances that may have resulted in injury to the natural resources under Federal trusteeship.
4. EPA and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability, and do not prevent the identification and inclusion in the CERCLA process for this Site of any additional Potentially Responsible Parties ("PRPs"). Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of fact, conclusions of law and determinations in Sections V and VI of this Settlement Agreement. Respondents agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms in any action to enforce its provisions.

II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon EPA and upon Respondents and their successors and assigns. Any change in ownership or corporate status of any Respondent, including, but not limited to, any transfer of assets or real or personal property, shall not alter such Respondent's responsibilities under this Settlement Agreement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Settlement Agreement, the remaining Respondents shall complete all such requirements.

7. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement.

8. The undersigned representative of each Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind such Respondent to this Settlement Agreement.

III. STATEMENT OF PURPOSE

9. In entering into this Settlement Agreement, the objectives of EPA and Respondents are: (a) to determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site, by conducting a remedial investigation ("RI"), excluding the Surface Drainageways (defined below); (b) to determine and evaluate, through the conduct of a feasibility study ("FS"), alternatives for the remediation or control of any release or threatened release of hazardous substances, pollutants or contaminants at or from the Site, excluding the Surface Drainageways; and (c) to recover certain response costs incurred and to be incurred by EPA with respect to the Site and this Settlement Agreement.

10. The Work, as defined below, conducted under this Settlement Agreement is subject to approval by EPA and shall provide all appropriate information to assess conditions relating to the Landfill Proper ("LP," as defined below) and groundwater at the Site and evaluate alternatives to the extent necessary to select a remedy for the LP and groundwater portions of the Site that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300 ("NCP"). Respondents shall conduct all Work under this Settlement Agreement in compliance with CERCLA, the NCP, and all applicable EPA guidance, policies, and procedures.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601-9675.

b. "Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXX.

d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

e. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports, and other items pursuant to this Settlement Agreement as it relates to the Work, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 69 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Paragraph 52 (emergency response), and Paragraph 101 Work Takeover).

f. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

g. "Landfill Proper" or "LP" shall mean the 19.6-acre inactive hazardous waste disposal area at the Site and all contaminated soils associated with prior landfill operations and leachate and any other areas where contaminants may have migrated, but not including the groundwater and the Surface Drainageways.

h. "Municipal solid waste" or "MSW" shall mean waste material: (1) generated by a household (including a single or multifamily residence); or (2) generated by a commercial, industrial or institutional entity, to the extent that the waste material (i) is essentially the same as waste normally generated by a household; (ii) is collected and disposed of with other municipal solid waste as part of normal municipal solid waste collection services; and (iii) contains a relative quantity of hazardous substances no greater than the relative quantity of hazardous substances contained in waste material generated by a typical single-family household.

i. "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

j. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

k. "Parties" shall mean EPA and Respondents.

l. "Past Response Costs" shall mean all direct and indirect costs paid by EPA pertaining to the Site through December 31, 2012.

m. "RCRA" shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901-6991.

n. "Respondents" shall mean General Electric Company and SI Group, Inc..

o. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.

p. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent, all appendices attached hereto (listed in Section XXVIII) and all documents incorporated by reference into this document, including without limitation EPA-approved submissions. EPA-approved submissions (other than progress reports) are incorporated into and become a part of this Settlement Agreement upon approval by EPA. In the event of conflict between this Settlement Agreement and any appendix or other incorporated documents, this Settlement Agreement shall control.

q. "Site" shall mean the Dewey Loeffel Landfill Superfund Site located in the Town of Nassau, Rensselaer County, New York, which includes the Landfill Proper ("LP") and all areas to which contamination has migrated, including, but not limited to, the groundwater and Surface Drainageways as defined below. The Site is depicted generally on the map attached as Appendix 1.

r. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the RI/FS for the LP and groundwater at the Site which is set forth in Appendix 2 to this Settlement Agreement and any modifications made thereto in accordance with this Settlement Agreement.

s. "Surface Drainageways" shall mean the surface waterbodies at the Site, including, but not limited to, the former Mead Road Pond area, Tributary T11A, Valatie Kill, Valley Stream, Smith Pond, and Nassau Lake, and all associated surface water, sediment, soil, and any contamination thereof or migrating therefrom.

t. "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); and (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

u. "Work" shall mean all activities Respondents are required to perform pursuant to this Settlement Agreement except those activities required by Section XV ("Retention of Records").

V. EPA's FINDINGS OF FACTS

12. The Site is located in a sparsely populated area of the Town of Nassau, a rural community in Rensselaer County, New York, with a total population of approximately 4,800.

13. The LP is located in a low-lying area between two wooded hills. Topography in the area generally slopes downward from east to west. Surface water generally drains from the LP to the northwest toward Mead Road Pond. Water exiting the Mead Road Pond area flows via the T11A tributary, which in turn flows into the Valatie Kill. The Valatie Kill flows in a southwesterly direction to the northern part of Nassau Lake, approximately 2 miles downstream of the LP. The Valatie Kill then flows from the southern part of Nassau Lake and discharges into Kinderhook Lake. Surface water flowing to the southeast from the LP flows to a low-lying area and to a small unnamed tributary and then into Valley Stream which flows through Smith Pond and discharges to the southern part of Nassau Lake. Groundwater flow in the overburden soils in the vicinity of the Site is generally to the west; in the bedrock, flows are both to the west and south. Groundwater flows to the south are influenced by the presence of fractures within the bedrock.

14. From approximately 1952 to 1968, the LP was operated by Richard Loeffel (until his death in 1959), his son Dewey Loeffel, and companies owned by the Loeffels, including, but not limited to, Loeffel's Waste Oil and Removal Service Company, Inc., and Marcar Oil, Inc. (hereinafter referred to as "Loeffel Companies"). The LP included lower (1 acre) and upper (5 acres) lagoons in the western and central portion of the LP, a 25-by 150-foot, 6-foot deep oil pit in the east central part of the LP, four 30,000-gallon above-ground oil storage tanks, and a drum disposal area located in the southern and eastern portions of the LP.

15. On information and belief: (i) Approximately 46,000 tons of industrial and/or hazardous waste were transported to and disposed of at the Site by the Loeffel Companies. The waste included, but was not limited to, solvents containing volatile organic compounds ("VOCs"), waste oils, sludges, and liquid and solid resins; (ii) of the 46,000 tons of industrial and/or hazardous waste sent to the Site, approximately 37,500 tons were sent by GE, 8,250 tons were sent by Schenectady Chemicals, Inc. (now SI), and 561 tons were sent by Bendix Corporation (now Honeywell International Inc. ("Honeywell")); and (iii) the industrial and/or hazardous waste sent by Respondents to the Site contained, among other things, hazardous substances such as polychlorinated biphenyls ("PCBs") and/or VOCs including, benzene, toluene, xylene, methyl ethyl ketone, trichloroethylene ("TCE"), chlorobenzene, 1,2 dichlorobenzene, 1,4 dichlorobenzene, 1,1 dichloroethane, 1,2 dichloroethylene, and/or vinyl chloride.

16. On information and belief: during disposal operations, hazardous substances were reportedly collected in 55 gallon drums and transported to the Site. The contents of reusable drums were dumped either into the oil pit or into the upper lagoon. Unusable drums were dumped either on the perimeter of the upper lagoon or in a drum disposal area. Drums were later covered with soil. The pit was used to store and/or separate recyclable oily wastes. The non-recyclable contents were pumped into the lagoon or onto the ground surface. Waste materials were reportedly also burned during facility operations. Hazardous substances have migrated

from the LP to, among other things, the underlying aquifer resulting in contamination of ground water.

17. In 1968, after several years of citizen complaints, documented downstream fish and cattle kills, and uncontrolled fires at the facility, the State of New York ("State") ordered Dewey Loeffel and the Loeffel Companies to stop discharges from the LP and perform remedial activities including covering and grading contaminated areas and controlling drainage around the LP. These measures were conducted by Dewey Loeffel and the Loeffel Companies at some time between 1970 and 1975.

18. On September 23, 1980, GE entered into an agreement with the New York State Department of Environmental Conservation ("NYSDEC") which required GE to perform field investigations, submit an engineering report which discussed the collected data, identify alternative remedial programs and recommend a remedial program from among the alternatives. The remedial program was subsequently approved by NYSDEC and included a low permeable cap with vegetative cover, surface water drainage swales, a perimeter cutoff wall extended to the bedrock and a leachate collection system. Pursuant to the 1980 agreement, GE paid NYSDEC approximately \$2.33 million, representing GE's share, as determined by NYSDEC, of NYSDEC's costs to implement the approved remedial program and long-term maintenance and monitoring at the LP. Subsequently Honeywell executed an agreement with NYSDEC pursuant to which it also contributed monies to defray a portion of the NYSDEC's anticipated remedial construction, maintenance and monitoring costs at the LP. In addition, after a decision by the New York State Appellate Division in *State v. Schenectady Chemicals, Inc.*, 479 N.Y.S.2d 1010 (N.Y. App. Div. 1984), in which the Court stated Schenectady Chemicals, Inc.'s (now SI's) share, as determined by NYSDEC, Schenectady Chemicals, Inc. entered into a Consent Judgment with the State, pursuant to which it paid \$496,000, representing its share of NYSDEC's costs to implement its remedial program and long-term maintenance and monitoring at the LP.

19. Beginning in 1983, NYSDEC and/or GE has performed a variety of response actions at the Site, some of which were performed in accordance with two Records of Decisions ("RODs") issued by NYSDEC under State law. Such response actions included, but were not limited to, the installation of a clay cap and soil/bentonite clay slurry wall at the LP, the removal of drums and storage tanks, the installation and operation of a bedrock groundwater recovery well system, monitoring and maintenance of residential well treatment systems, off-Site disposal of extracted contaminated groundwater and leachate and removal of contaminated sediments. NYSDEC designed, but did not construct a new leachate collection system and began the design of a wastewater treatment facility in accordance with a Record of Decision issued by NYSDEC under State law.

20. At the request of NYSDEC, EPA proposed the Site for listing on the National Priorities List ("NPL") established pursuant to Section 105 of CERCLA, 42 U.S.C. §9605, by publication in the *Federal Register* on March 4, 2010, 75 *Fed. Reg.* 9843. The Site was listed on the NPL on March 10, 2011.

21. A VOC groundwater plume has been identified extending from the LP to the south approximately to the vicinity of Central Nassau Road. Benzene and TCE are the primary contaminants within the downgradient groundwater plume.
22. From April 2011 to April 2012, EPA conducted an Initial Supplemental Site Investigation ("ISSI") at the Site which included the performance of various subsurface investigations of the LP, an assessment of the landfill cap, an infiltration study, and the installation of five groundwater boreholes to further assess the contaminated groundwater plume. The ISSI indicated the cap is operating as originally designed (i.e., to impede or divert the majority of rainfall and snowmelt from passing through the cap and into the lower disposal area (the area immediately below the cap). Soil saturation data does, however, suggest some water is infiltrating through the cap. In addition, the ISSI identified the following: the cap as constructed does not include an underlying synthetic flexible membrane layer or a precipitation drainage layer; four anomalies or areas consistent with buried metal in the south and south-central portions of the Site; and evidence of visual contamination encountered at depth at several soil boring locations. The groundwater portion of the ISSI revealed that state and federal drinking water standards for VOCs were exceeded in all five EPA boreholes. The ISSI also indicated that the existing monitoring well system and EPA's boreholes installed during the ISSI have not fully defined the horizontal and vertical extent of the contaminated groundwater plume and that additional groundwater studies are necessary.
23. Currently four residential wells (located on three properties) to the south of the LP have been impacted by Site contaminants. Four additional residential wells are located within 300-1,000 feet from the edge of the contaminant plume. Groundwater in the vicinity of the edge of the plume flows generally to the south and southwest, towards these four additional residential wells.
24. The current groundwater extraction system was constructed by NYSDEC in an effort to intercept significant volumes of contaminants emanating from the LP, reducing the contaminant concentration at the leading edge of the contaminant plume. Data collected in 2010 revealed that the extracted groundwater contained concentrations up to 51,800 ppb of VOCs, including benzene concentrations as high as 8,100 ppb and TCE concentrations as high as 35,000 ppb.
25. On August 15, 2011, EPA Region 2's Director of the Emergency and Remedial Response Division signed an Action Memorandum authorizing and funding a removal action at the Site which consists of the continued operation (pumping) and maintenance of the groundwater extraction wells which NYSDEC had been operating, winterization of the extraction well system and the associated frac tank to allow for continuous year round operation of the wells, and the disposal of the collected leachate and groundwater, also previously being performed by NYSDEC, in order to prevent impacts to additional residential supply wells.
26. On April 16, 2012, a Settlement Agreement and Order on Consent for the performance of a removal action at the Site ("Removal Order") between EPA and the Respondents GE and SI became effective which requires such Respondents to take over the year-round pumping of the leachate collection system and groundwater extraction wells, dispose of the collected leachate

and groundwater off-Site until such time that an on-Site treatment plant can be constructed and approved by EPA and subsequently operated by such Respondents for the treatment of the extracted contaminated groundwater and collected leachate.

27. VOCs, including benzene, toluene, xylene, methyl ethyl ketone, TCE, chlorobenzene, 1,2 dichlorobenzene, 1,4 dichlorobenzene, 1,1 dichloroethane, 1,2 dichloroethylene, and/or vinyl chloride, and PCBs are "hazardous substances" within the meaning of Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

28. The discharge, dumping and/or disposal of hazardous substances at the Site constitutes a "release" of hazardous substances into the environment as the term "release" is defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22). In addition, there is a threat of further releases of hazardous substances at and from the Site.

29. Exposure to the various hazardous substances present at the Site by direct contact, ingestion or inhalation may cause a variety of adverse human health effects.

30. There is a threat of migration of the hazardous substances present at the Site which might further impact groundwater, surface water, and the surrounding environment through, for example, surface water run-off and/or percolation of rain and melting snow through contaminated soil.

31. There is a continuing threat of migration of the contaminated groundwater plume that could contaminate additional residential wells resulting in further risks to human health and the environment.

VI. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS

Based on EPA's Findings of Fact set forth above, EPA has determined that:

32. The Site constitutes a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

33. The discharge, dumping and/or disposal of hazardous substances at the Site constitutes a "release" of hazardous substances into the environment as the term "release" is defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22). In addition, there is a threat of further releases of hazardous substances at and from the Site.

34. EPA alleges that Respondent GE is a responsible party with respect to the Site within the meaning of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), because Respondent GE arranged for the disposal or treatment of hazardous substances at the Site within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

35. EPA alleges that Respondent SI is a responsible party with respect to the Site within the meaning of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), because Respondent SI arranged

for the disposal or treatment of hazardous substances at the Site within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. §9607(a)(3).

36. EPA also alleges that Honeywell is a responsible party with respect to the Site within the meaning of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), because Honeywell arranged for the disposal or treatment of hazardous substances at the Site within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. §9607(a)(3).

37. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

38. Respondents have been given an opportunity to discuss with EPA the basis for issuance of this Settlement Agreement and its terms.

39. The actions required by this Settlement Agreement are necessary to protect the public health or welfare or the environment, are in the public interest, and are consistent with CERCLA and the NCP and are expected to expedite effective remedial action.

40. EPA has determined that Respondents are qualified to conduct the RI/FS pursuant to this Settlement Agreement within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondent complies with the terms of this Settlement Agreement.

VII. NOTICE

41. By providing a copy of this Settlement Agreement to NYSDEC, EPA is notifying the State that this Settlement Agreement is being issued and that EPA is the lead agency for coordinating, overseeing, and enforcing the response actions required by this Settlement Agreement.

VIII. SETTLEMENT AGREEMENT AND ORDER

42. Based upon the foregoing Findings of Fact and Conclusions of Law, it is hereby agreed and ordered that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

IX. WORK TO BE PERFORMED

43. Selection of Contractors, Personnel. All Work performed under this Settlement Agreement shall be under the direction and supervision of qualified personnel. Within thirty (30) days of the Effective Date of this Settlement Agreement, and before the Work outlined below begins, Respondents shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories, to be used in

carrying out the Work; provided that if particular contractors, subcontractors, consultants, and/or laboratories are not known within thirty (30) days after the Effective Date, they shall be identified to EPA as soon as practicable after they are retained but no later than ten (10) days prior to commencement of the Work which they are proposed to perform. With respect to any proposed contractor, Respondents shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995, or most recent version), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01/002, March 2001 or subsequently issued guidance) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondents shall be subject to EPA's review, for verification that such persons meet minimum technical background and experience requirements. This Settlement Agreement is contingent on Respondents' demonstration to EPA's satisfaction that Respondents are qualified to perform properly and promptly the actions set forth in this Settlement Agreement. If EPA disapproves in writing of any person's technical qualifications, Respondents shall notify EPA of the identity and qualifications of the proposed replacements within fourteen (14) days of the written notice or such other time as is agreed to by EPA. If EPA subsequently disapproves of the proposed replacement, EPA reserves the right to terminate this Settlement Agreement and to conduct a complete RI/FS, and to seek reimbursement of costs and penalties from Respondents. During the course of the RI/FS, Respondents shall notify EPA in writing of any changes or additions in the personnel used to carry out such Work, providing its names, titles, and qualifications. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

44. Respondents have selected, and EPA has approved, Paul W. Hare of Respondent GE as Respondents' Project Coordinator for the Work required under this Settlement Agreement. The Project Coordinator shall be responsible for administration of all actions by Respondents required by this Settlement Agreement. To the greatest extent possible, the Project Coordinator shall be readily available during Site Work. EPA retains the right to disapprove of the designated Project Coordinator. Respondents shall have the right to change their Project Coordinator, subject to EPA's right to disapprove. Respondents shall notify EPA ten (10) days before such a change is made, by providing EPA with the replacement Project Coordinator's name, address, telephone number, and qualifications. The initial notification may be made orally, but shall be promptly followed by a written notification. If EPA disapproves a proposed Project Coordinator, Respondents shall propose a different Project Coordinator and shall notify EPA of that person's name, address, telephone number and qualifications within fourteen (14) days following EPA's disapproval, and Respondents shall continue to propose Project Coordinators until EPA approves of one. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by Respondents.

45. EPA has designated the following individual as its Project Coordinator with respect to the Site:

Ben Conetta, Remedial Project Manager
U.S. Environmental Protection Agency, Region II
290 Broadway, 19th Floor
New York, NY 10007
212-637-3030
conetta.benny@epa.gov

EPA will notify Respondents of any change of its designated Project Coordinator. Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to EPA's Project Coordinator.

46. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP. In addition, EPA's Project Coordinator shall have the authority, consistent with the NCP, to halt any Work required by this Settlement Agreement, and to take any necessary response action when he determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA Project Coordinator from the area under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of Work.

47. The tasks that Respondents must perform and the schedule for their performance are provided in the SOW. The SOW is incorporated into and an enforceable part of this Settlement Agreement. Respondents shall perform the Work in accordance with the schedules, standards, specifications, and other requirements of the RI/FS Work Plan, a deliverable of the SOW, as initially approved by EPA, and as it may be amended or modified by EPA prior to completion of the RI/FS and shall comply with all other requirements of this Settlement Agreement.

48. Community Involvement Plan. EPA will prepare a community involvement plan, in accordance with EPA guidance and the NCP. Respondents shall cooperate with EPA in providing information relating to Work to the public. As requested by EPA, Respondents shall provide information supporting EPA's community involvement plan and shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA.

49. Modification of the RI/FS Work Plan.

a. If at any time during the RI/FS process, Respondents identify a need for additional data, Respondents shall submit a memorandum documenting the need for additional data to the EPA Project Coordinator within twenty-one (21) days of identification. EPA in its discretion will determine whether the additional data will be collected by Respondents and whether it will be incorporated into plans, reports, and other deliverables.

b. In the event of an immediate threat or unanticipated or changed circumstances at the Site, Respondents shall notify the EPA Project Coordinator by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In the event that EPA determines that

the immediate threat or the unanticipated or changed circumstances warrant changes in the RI/FS Work Plan to protect human health or the environment or to accomplish the objectives of the RI/FS, EPA will modify or amend the RI/FS Work Plan in writing accordingly. Respondents shall implement the RI/FS Work Plan as modified or amended.

c. EPA may determine that, in addition to tasks defined in the initially-approved RI/FS Work Plan, other additional Work may be necessary to accomplish the objectives of the RI/FS. Respondents agree to perform these response actions in addition to those required by the initially approved RI/FS Work Plan, including any approved modifications, if EPA determines that such actions are necessary for a complete RI/FS.

d. Respondents shall confirm their willingness to perform the additional Work in writing to EPA within seven (7) days of receipt of the EPA request. If Respondents object to any modification determined by EPA to be necessary pursuant to this Paragraph, Respondents may seek dispute resolution pursuant to Section XVI (Dispute Resolution). The RI/FS Work Plan shall be modified in accordance with the final resolution of the dispute.

e. Respondents shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the RI/FS Work Plan or written RI/FS Work Plan supplement. EPA reserves the right to conduct the Work itself at any point in accordance with Paragraph 101, to seek reimbursement from Respondents, and/or to seek any other appropriate relief.

f. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions at the Site.

50. Off-Site Shipment of Waste Material. Prior to any off-Site shipment of Waste Material from the Site to an out-of-state waste management facility, Respondents shall provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to EPA's Designated Project Coordinator. However, this notification requirement shall not apply to any off-Site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

a. Respondents shall include in the written notification the following information: (1) the name and location of the facility to which the Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state or to a facility in another state.

b. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the remedial investigation and feasibility study. Respondents shall provide the information required by Subparagraphs 50.a. and 50.c. as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

c. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-Site location, Respondents shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-Site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

51. Meetings. With reasonable notice, Respondents shall make presentations at, and participate in, meetings at the request of EPA during the initiation, conduct, and completion of the RI/FS. In addition to discussion of the technical aspects of the RI/FS, topics may include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.

52. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence arising from or relating to Respondents' performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize such release or endangerment caused or threatened by the release. Respondents shall take these actions in accordance with all applicable provisions of this Settlement Agreement and SOW, including, but not limited to, the Health and Safety Plan. Respondents shall also immediately notify the EPA Project Coordinator at (212) 637-3030 (or, in the event of his unavailability, the Chief of the Response and Prevention Branch of the Emergency and Remedial Response Division of EPA Region 2 at (732) 321-6656) of this or any incident or Site conditions causing a release or threat of release during the performance of the Work whether arising from the Work or not. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XIX (Payment of Response Costs).

b. Nothing in the preceding Paragraph shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

c. Upon the occurrence of any event during performance of the Work required hereunder which, pursuant to Section 103 of CERCLA, requires reporting to the National Response Center, Respondent shall immediately orally notify the EPA Project Coordinator (or, in the event of the unavailability of the EPA Project Coordinator, the Chief of the Response and Prevention Branch of the Emergency and Remedial Response Division of EPA Region 2 at (732) 321-6656) of the incident or Site conditions, in addition to the reporting required by Section 103 of CERCLA, 42 U.S.C. § 9603. Within fourteen (14) days of the onset of such an event, Respondent shall also furnish EPA with a written report setting forth the events which occurred and the measures taken, and to be taken, in response thereto. The reporting requirements of this Paragraph are in

addition to, not in lieu of, reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

X. NOTIFICATION AND REPORTING REQUIREMENTS

53. Monthly Progress Reports. Until the completion of the Work as provided in Paragraph 129 below, Respondents shall prepare and provide EPA with written monthly progress reports which: (1) describe the actions which have been taken toward achieving compliance with this Settlement Agreement during the previous month; (2) include all results of sampling, tests, modeling, and all other data (including raw data) received or generated by or on behalf of Respondents during the previous month in the implementation of the Work required hereunder; (3) describe all actions, data, and plans which are scheduled for the next two months and provide other information relating to the progress of Work as is customary in the industry; and (4) include information regarding percentage of completion, all delays encountered or anticipated that may affect the future schedule for completion of the Work required hereunder, and a description of all efforts made to mitigate those delays or anticipated delays. These progress reports shall be submitted to EPA by Respondents by the fifteenth (15th) day of every month following the effective date of this Settlement Agreement.

54. All work plans, reports, notices, and other documents required to be submitted to EPA under this Settlement Agreement shall be sent by certified mail, return receipt requested, by overnight delivery, or by courier to the following addressees:

1 hard copy (bound), 1 loose leaf copy, and 3 electronic copies:

U.S. Environmental Protection Agency, Region II
Emergency and Remedial Response Division
New York Remediation Branch
290 Broadway, 20th Floor
New York, NY 10007
ATTN: Dewey Loeffel Superfund Site Project Manager

1 electronic copy:

U.S. Environmental Protection Agency, Region II
Office of Regional Counsel
New York/Caribbean Superfund Branch
290 Broadway, 17th Floor
New York, NY 10007
ATTN: Dewey Loeffel Superfund Site Attorney

1 electronic copy:

New York State Department of Environmental Conservation

Division of Environmental Remediation -- Remedial Bureau B
625 Broadway, 12th Floor
Albany, NY 12233-7016
ATTN: Michael Komoroske, Environmental Engineer 3

All electronic copies shall be in a copyable and searchable format. Upon EPA's request, Respondents shall submit additional hard copies of large, odd sized, or hard to reproduce files, figures, documents or other deliverables that Respondents are required to submit.

55. Respondents shall give EPA at least fourteen (14) days advance notice of all field work or field activities to be performed by Respondents pursuant to this Settlement Agreement, unless otherwise agreed to by EPA, in its sole discretion.

XI. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

56. After review of any plan, report, or other item that is required to be submitted for approval pursuant to this Settlement Agreement, in a notice to Respondents EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within 30 days or as otherwise provided in the SOW, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

57. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 56.a, b, c, or e, Respondents shall proceed to take any action required by the plan, report, or other deliverable, as approved or modified by EPA, subject only to their right to invoke the Dispute Resolution procedures set forth in Section XVI (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Respondents shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Paragraph 56.c and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XVI (Stipulated Penalties).

58. Resubmission.

a. Upon receipt of a notice of disapproval, Respondents shall, within 30 days or as provided in the SOW or such longer time as otherwise specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the resubmission, as provided in Section XVII, shall accrue during the 30-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 59 and 60, respectively.

b. Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVI (Stipulated Penalties).

c. Respondents shall not proceed with any activities or tasks dependent on the following deliverables until receiving EPA approval, approval on condition, or modification of such deliverables: RI/FS Work Plan, Quality Assurance Project Plan ("QAPP") including Sampling Analysis Plan ("SAP") if necessary, Cultural Resources Survey Work Plan if necessary, Treatability Studies Work Plan (if necessary), Baseline Human Health Risk Assessment ("BHHRA"), Pathway Analysis Report ("PAR"), Screening Level Ecological Risk Assessment ("SLERA"), Baseline Ecological Risk Assessment ("BERA"), Remedial Investigation Report, and Feasibility Study Report. While awaiting EPA approval, approval on condition, or modification of these deliverables, Respondents shall proceed with all other tasks and activities that may be conducted independently of these deliverables, in accordance with the schedule set forth under this Settlement Agreement.

d. For all remaining deliverables not listed above in Paragraph 58.c., Respondents shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval on the submitted deliverable. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the RI/FS.

59. If EPA disapproves a resubmitted plan, report, or other deliverable, or portion thereof, EPA may again direct Respondents to correct the deficiencies. EPA shall also retain the right to modify or develop the plan, report, or other deliverable. Respondents shall implement any such plan, report, or deliverable as corrected, modified, or developed by EPA, subject only to Respondents' right to invoke the procedures set forth in Section XV (Dispute Resolution).

60. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution) and EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by EPA or superseded by an agreement reached pursuant to that Section. The provisions of Section XV (Dispute Resolution) and Section XVI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is not otherwise revoked, substantially modified, or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XV, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVI.

61. In the event that EPA takes over some of the tasks, but not the preparation of the RI Report or the FS Report, Respondents shall incorporate and integrate information supplied by EPA into the final reports.

62. All plans, reports, and other deliverables submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be incorporated into and enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement.

63. Neither failure of EPA to expressly approve or disapprove of Respondents' submissions within a specified time period, nor the absence of comments, shall be construed as approval by EPA. Whether or not EPA gives express approval for Respondents' deliverables, Respondents are responsible for preparing deliverables acceptable to EPA.

XII. QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION

64. Quality Assurance. Respondents shall assure that Work performed, samples taken, and analyses conducted conform to the requirements of the RI/FS SOW, RI/FS Work Plan, the QAPP required by the RI/FS Work Plan, and guidance identified in those plans. Respondents shall assure that field personnel used by them are properly trained in the use of field equipment and in chain of custody procedures. Respondents shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.

65. Sampling.

a. All results of sampling, tests, modeling, or other data (including raw data) generated by Respondents, or on Respondents' behalf, during the period that this Settlement Agreement is effective shall be submitted to EPA in the next monthly progress report following receipt of such data as described in Paragraph 53 of this Settlement Agreement. EPA will make available to Respondents validated data generated by EPA unless it is exempt from disclosure by any federal or state law or regulation. Data will also be available to EPA, upon receipt from the lab, if requested by EPA. Data will be submitted in a useable database format consistent with the Region 2 Electronic Data Deliverable ("EDD") format (information available at www.epa.gov/region02/superfund/medd.htm).

b. At EPA's verbal or written request, or the request of EPA's oversight contractor, Respondents shall allow split or duplicate samples to be taken by EPA (and its authorized representatives) of any samples collected in implementing this Settlement Agreement. Any split samples of Respondents which are analyzed will be analyzed by the methods identified in the QAPP.

66. Access to Information.

a. Respondents shall provide to EPA, upon request, copies of all documents and information within its possession or control or that of its contractors or agents relating to Work activities at the Site or the implementation of this Settlement Agreement, including, but not

limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to EPA, for purposes of investigation, information gathering, or testimony, its employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

b. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to EPA, or if EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondent. Respondent shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondent asserts business confidentiality claims.

c. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege in lieu of providing documents, it shall provide EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, notwithstanding the above, no documents, reports, or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

d. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

67. In entering into this Settlement Agreement, Respondents agree to waive any objections to any data gathered, generated, or evaluated by EPA or Respondents in the performance or oversight of the Work that has been verified according to the quality assurance/quality control ("QA/QC") procedures required pursuant to this Settlement Agreement or any EPA-approved RI/FS Work Plans. If Respondents object to any other data relating to the RI/FS, Respondents shall submit to EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within fifteen (15) days of the monthly progress report containing the data.

XIII. SITE ACCESS

68. To the extent that the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by a Respondent, such Respondent shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

69. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than a Respondent, Respondents shall use best efforts to obtain all necessary access agreements within forty-five (45) days after the Effective Date, after the need for access arises, or as otherwise specified in writing by the EPA Project Coordinator. Respondents shall immediately notify EPA if after using best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. If Respondents cannot obtain access agreements, EPA may either (i) obtain access for such Respondent(s) or assist such Respondent(s) in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate; (ii) perform those tasks or activities with EPA contractors; or (iii) terminate the Settlement Agreement. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XIX (Payment of Response Costs). If EPA performs those tasks or activities with EPA contractors and does not terminate the Settlement Agreement, Respondents shall perform all other tasks or activities not requiring access to that property, and Respondents shall reimburse EPA for all costs incurred in performing such tasks or activities. Respondents shall integrate the results of any such tasks or activities undertaken by EPA into its plans, reports, and other deliverables.

70. Notwithstanding any provision of this Settlement Agreement, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIV. COMPLIANCE WITH OTHER LAWS

71. Respondents shall comply with all applicable local, state, and federal laws and regulations when performing the RI/FS. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work is to be conducted off-site and requires a federal or state permit or approval, Respondents shall submit timely and complete applications and take all other actions necessary to obtain and comply with all such permits or approvals. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XV. RETENTION OF RECORDS

72. During the pendency of this Settlement Agreement and for a minimum of 10 years after commencement of construction of any remedial action, each Respondent shall preserve and retain all non-identical copies of documents, records, and other information (including documents, records, or other information in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after commencement of construction of any remedial action, Respondents shall also instruct their contractors and agents to preserve all documents, records, and other information of whatever kind, nature, or description relating to performance of the Work.

73. At the conclusion of this document retention period, Respondents shall notify EPA at least ninety (90) days prior to the destruction of any such documents, records, or other information, and, upon request by EPA, Respondents shall deliver any such documents, records, or other information to EPA. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA with the following: 1) the title of the document, record, or other information; 2) the date of the document, record, or other information; 3) the name and title of the author of the document, record, or other information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or other information; and 6) the privilege asserted by Respondents. However, notwithstanding the above, no documents, records or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

74. Respondents hereby certify that to the best of their knowledge and belief, after thorough inquiry, they have not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information (other than identical copies) relating to their potential liability regarding the Site since notification of potential liability by EPA, and that they have fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e).

XVI. DISPUTE RESOLUTION

75. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

76. Notwithstanding any other provision of this Settlement Agreement, Respondents may not invoke the dispute resolution procedures of this Section more than once regarding the same issue. For example, if Respondents invoke the dispute resolution procedures with respect to an issue raised by EPA's comments on the RI Report, and said issue is resolved under this Section, Respondents may not invoke the dispute resolution procedures with respect to the same issue later, in the context of EPA's comments on the FS Report.

77. If Respondents object to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall notify EPA in writing of their objection(s) within fourteen (14) days of such action or, in the case of billings for Future Response Costs, twenty-one (21) days of receipt of such bill, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have fourteen (14) days from EPA's receipt of Respondents' written objection(s) to resolve the dispute (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Such extension may be agreed to verbally but must be confirmed in writing.

78. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, Respondents may, within ten (10) days of the conclusion of that period, request a determination on the matter in dispute by the Director of the Emergency and Remedial Response Division, EPA Region 2 (the "ERRD Director"). Such a request shall be made in writing. The ERRD Director will issue a written decision on the matter in dispute. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. The invocation of dispute resolution under this Section shall not extend, postpone, or affect in any way any of Respondents' obligations under this Settlement Agreement that are not directly in dispute, unless EPA agrees otherwise. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs, and regardless of whether Respondents agree with the decision.

XVII. STIPULATED PENALTIES

79. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 80 and 81 for failure to comply with any of the requirements of this Settlement Agreement specified below unless excused under Section XVII (Force Majeure). "Compliance" by Respondents shall include completion of the Work under this Settlement Agreement or any activities contemplated under any RI/FS Work Plan or other plan approved under this Settlement Agreement identified below, in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

80. For all violations of this Settlement Agreement, except as provided in Paragraph 81 below, stipulated penalties shall accrue as follows:

Penalty Per Violation Per Day	Period of Noncompliance
\$ 1,000	1 st through 7 th day
\$ 1,500	8 th through 15 th day
\$ 3,000	16 th through 28 th day

\$ 7,000

29th day and beyond

81. For the monthly progress reports required pursuant to Paragraph 53 above, stipulated penalties shall accrue in the amount of \$500 per day, per violation, for the first week of noncompliance; \$1,000 per day, per violation, for the 8th through 15th day of noncompliance; \$2,000 per day, per violation, for the 16th day through the 28th day of noncompliance; and \$4,000 per day, per violation, for the 29th day of noncompliance and beyond.

82. In the event that EPA assumes performance of the remaining Work pursuant to Paragraph 101 (Work Takeover), Respondents shall be liable for a stipulated penalty in the amount of \$600,000.

83. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Section X (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 22nd day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and (b) with respect to a decision by the EPA management official designated in Paragraph 78 of Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing in this Settlement Agreement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

84. Following EPA's determination that Respondents have failed to comply with a requirement of this Settlement Agreement, EPA may give Respondents written notification of the same and describe the noncompliance. EPA may send Respondents a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.

85. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures under Section XV (Dispute Resolution). Respondents shall make all payments required by this Paragraph to EPA by Fedwire Electronic Funds Transfer to:

Federal Reserve Bank of New York

ABA = 021030004

Account = 68010727

SWIFT address = FRNYUS33

33 Liberty Street

New York NY 10045

Field Tag 4200 of the Fedwire message should read "D 68010727 Environmental Protection Agency"

and shall reference stipulated penalties, Site/Spill ID Number A2-23, and the EPA docket number for this action.

At the time of payment, Respondents shall send notice that payment has been made as provided in Paragraph 93.a below.

86. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement.

87. Penalties shall continue to accrue as provided in Paragraph 83 during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.

88. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 85.

89. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Settlement Agreement, except in the case of willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by EPA), Paragraph 99. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XVIII. FORCE MAJEURE

90. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by an event which constitutes *force majeure*. For purposes of this Settlement Agreement, a *force majeure* event is defined as any event arising from causes beyond the control of Respondents or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. A *force majeure* event does not include financial inability to perform the Work or increased cost of performance.

91. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify EPA orally within 48 hours of when a Respondent first knew or should have known that the event might cause a delay. Within seven (7) days thereafter, Respondents shall provide

to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to be a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

92. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. However, EPA shall take into consideration the effect of the extension of time granted in connection with Respondents' performance of their overall obligations under the RI/FS Work Plan, and shall modify as warranted, if necessary. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XIX. PAYMENT OF RESPONSE COSTS

93. Payment of Past Response Costs.

a. Respondents shall pay to EPA \$1,400,000 in partial reimbursement of Past Response Costs within forty-five (45) days of the Effective Date. Respondents shall make such payment by Electronics Funds Transfer ("EFT") to EPA at Federal Reserve Bank of New York. To make payment via EFT, Respondents shall provide the following information to its bank:

- i. Amount of payment:
- ii. EFT to be directed to: **Federal Reserve Bank of New York**
- iii. ABA Routing Number: **021030004**
- iv. Federal Reserve Bank of New York account number: **68010727**
- v. SWIFT address: **FRNYUS33**
- vi. Address: **Federal Reserve Bank of New York**
33 Liberty Street
New York, NY 10045
- vii. Field Tag 4200 of the Fedwire message to read: **D 68010727**
Environmental Protection Agency
- viii. Name of remitter:
- ix. Settlement Agreement Index Number: **CERCLA-02-2013-2008**
- x. Site/spill identifier: **A2-23**

Along with this information, Respondents shall instruct its bank to remit payment in the required amount via EFT to EPA's account with Federal Reserve Bank of New York. To ensure that Respondents' payments are properly recorded, Respondents shall send a letter to EPA within one week of the EFT, which references the date of the EFT, the payment amount, the name of the Site, the Index Number of this Settlement Agreement, and Respondents' name and address. Such letter shall be sent to the EPA addressees listed in Paragraph 54 above and to:

Chief, Financial Management Branch
U.S. Environmental Protection Agency, Region II
290 Broadway, 22nd Floor
New York, New York 10007-1866

b. Upon EPA's receipt of Respondents' payment of \$1,400,000 in accordance with subparagraph a, Respondents' potential liability to the United States for Past Response Costs shall be reduced by that amount.

94. Payments of Future Response Costs. Respondents shall also reimburse EPA for all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondents a bill or bills requiring payment that includes a printout of cost data in EPA's financial management system. Respondents shall, within thirty (30) days of receipt of each such billing, remit payment of the billed amount via EFT to EPA in accordance with the payment procedures set forth in Paragraph 93.a above.

95. The total amounts to be paid by Respondents pursuant to Paragraphs 93 and 94 above shall be deposited in the Dewey Loeffel Landfill Site Special Account within the EPA Hazardous Substance Superfund, to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

96. If Respondents do not make the payment referred to in Paragraph 93.a above when due, or do not pay Future Response Costs within thirty (30) days of Respondents' receipt of a bill, Respondents shall pay Interest on that payment, and/or Future Response Costs, respectively. The Interest on the Past Response Cost payment referred to in Paragraph 93.a shall begin to accrue on the due date, and shall continue to accrue until the date of payment. The Interest on unpaid Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. If EPA receives a partial payment, Interest shall accrue on any unpaid balance. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including, but not limited to, payments of stipulated penalties pursuant to Section XVII. Respondents shall make all payments required by this Paragraph in the manner described in Paragraph 93.a.

97. Respondents may contest payment of any Future Response Costs required under Paragraph 94, if they believe that EPA has made a mathematical error, has included costs which are outside the scope of the definition of Future Response Costs, or has incurred excess costs as a

direct result of an EPA action that was inconsistent with the NCP. Such objection shall be made in writing within fourteen (14) days of receipt of the bill and must be sent to the EPA representatives listed in Section X above. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the 30-day period pay all uncontested Future Response Costs to EPA in accordance with the payment procedures in Paragraph 93.a. Simultaneously Respondents shall establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation ("FDIC"), and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the EPA Project Coordinator a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the dispute resolution procedures in Section XVI (Dispute Resolution). If EPA prevails in the dispute, within ten (10) days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in accordance with the payment procedures in Paragraph 93.a. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in accordance with the payment procedures in Paragraph 93.a. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVI (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs.

XX. COVENANT NOT TO SUE BY EPA

98. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work performed under this Settlement Agreement, for recovery of \$1,400,000 of Past Response Costs and for recovery of Future Response Costs. This covenant not to sue shall take effect upon receipt by EPA of payment pursuant to Paragraph 93 and any Interest or Stipulated Penalties due for failure to pay such Past Response Costs as required by Sections XIX and XVII of this Settlement Agreement. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XIX. This covenant not to sue extends only to Respondents and does not extend to any other person.

XXI. RESERVATIONS OF RIGHTS BY EPA

99. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary

to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, except as specifically provided in this Settlement Agreement, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

100. The covenant not to sue set forth in Section XX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;

b. liability for costs not included within the definitions of Past Response Costs or Future Response Costs and for all Past Response Costs in excess of \$1,400,000.

c. liability for performance of response action other than the Work, including, but not limited to, response actions relating to the Surface Drainageways;

d. criminal liability;

e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and

g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

101. Work Takeover. In the event EPA determines that Respondents have ceased implementation of any portion of the Work, or are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondents may invoke the procedures set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by EPA in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents shall pay pursuant to Section XIX (Payment of Response Costs).

XXII. COVENANT NOT TO SUE BY RESPONDENTS

102. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Future Response Costs, Past Response Costs or this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of the Work, or arising out of the response actions for which the Past Response Costs or Future Response Costs have or will be incurred, including any claim under the United States Constitution, the New York State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of Past Response Costs or Future Response Costs.

However, Respondents reserve the right to assert any defenses they may have in any claim by the United States for recovery of those Past Response Costs that are not reimbursed by Respondents under this Settlement Agreement.

103. Claims Against De Micromis Parties. Respondents agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) or 113 of CERCLA) that they may have for all matters relating to the Work at the Site against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

104. The waiver in Paragraph 103 shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person meeting the above criteria if such person asserts a claim or cause of action relating to the Site against such Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria if EPA determines:

a. that such person has failed to comply with any EPA requests for information or administrative subpoenas issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of RCRA, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site, or has been convicted of a criminal violation for the conduct to which this waiver would apply and that conviction has not been vitiated on appeal or otherwise; or

b. that the materials containing hazardous substances contributed to the Site by such person have contributed significantly, or could contribute significantly, either individually or in the aggregate, to the cost of response action or natural resource restoration at the Site

105. Claims Against De Minimis and Ability to Pay Parties. Respondents agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) or 113 of CERCLA) that they may have for response costs relating to the Work at the Site against any person that in the future enters into a final Section 122(g) *de minimis* settlement, or a final settlement based on limited ability to pay, with EPA with respect to the Site as of the Effective Date. This waiver shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person if such person asserts a claim or cause of action relating to the Site against such Respondent.

106. Claims Against MSW Generators and Transporters. Respondents agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) or 113 of CERCLA) that they may have for all matters relating to the Work at the Site against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of MSW at the Site, if the volume of MSW disposed, treated, or transported by such person to the Site did not exceed 0.2 percent of the total volume of waste at the Site.

XXIII. OTHER CLAIMS

107. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents.

108. Except as expressly provided in Paragraphs 103 (Claims Against De Micromis Parties), 105 (Claims Against *De Minimis* and Ability to Pay Parties), and 106 (Claims Against MSW Parties), and Section XX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages, and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

109. No action or decision by EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIV. EFFECT OF SETTLEMENT/CONTRIBUTION

110. Except as provided in Paragraphs 103 (Claims Against De Micromis Parties), 105 (Claims Against *De Minimis* and Ability to Pay Parties), and 106 (Claims Against MSW

Generators and Transporters), nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement Agreement. Except as provided in Paragraphs 103 (Claims Against De Micromis Parties), 105 (Claims Against *De Minimis* and Ability to Pay Parties), and 106 (Claims Against MSW Generators and Transporters), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

111. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and that Respondents are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), or as may be otherwise provided by law, for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work, Past Response Costs, and Future Response Costs. The Parties further agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondents have, as of the Effective Date, resolved their liability to the United States for the Work, Past Response Costs, and Future Response Costs.

112. Each Respondent shall, with respect to any suit or claim brought by it for matters related to this Settlement Agreement, notify EPA in writing no later than 60 days prior to the initiation of such suit or claim. Each Respondent also shall, with respect to any suit or claim brought against it for matters related to this Settlement Agreement, notify EPA in writing within 10 days of service of the complaint or claim upon it. In addition, each Respondent shall notify EPA within 10 days of service or receipt of any Motion for Summary Judgment and within 10 days of receipt of any order from a court setting a case for trial, for matters related to this Settlement Agreement.

113. In any subsequent administrative or judicial proceeding initiated by EPA, or by the United States on behalf of EPA, for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondents shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by EPA set forth in Section XIX.

114. Effective upon signature of this Settlement Agreement by a Respondent, such Respondent agrees that the time period after the date of its signature shall not be included in computing the running of any statute of limitations potentially applicable to any action brought

by the United States related to the "matters addressed" as defined in Paragraph 111 and that, in any action brought by the United States related to the "matters addressed," such Respondent will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time after its signature of this Settlement Agreement. If EPA gives notice to Respondents that it will not make this Settlement Agreement effective, the statute of limitations shall begin to run again commencing ninety days after the date such notice is sent by EPA.

XXV. INDEMNIFICATION

115. Respondents shall indemnify, save, and hold harmless the United States, its officials, agents, contractors, subcontractors, employees, and representatives from any and all claims or causes of action arising from, or on account of negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on its behalf or under its control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

116. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

117. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States arising from or on account of any contract, agreement, or arrangement between Respondents and any person for performance of the Work on or relating to the Site. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondents and any person for performance of the Work on or relating to the Site.

XXVI. INSURANCE

118. At least thirty (30) days prior to commencing any on-Site Work under this Settlement Agreement, Respondents shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of two million dollars, combined single limit, naming the EPA as an additional insured. Within the same period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement

Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVII. FINANCIAL ASSURANCE

119. EPA has reviewed financial documentation dated March 13, 2013 previously supplied by Respondent GE to EPA and is satisfied that, through March 31, 2014, Respondents have sufficient financial resources to conduct the Work. By no later than March 31, 2014, Respondents shall reestablish and maintain financial security for the benefit of EPA in an amount no less than the estimated cost of the Work to be performed by Respondents under this Settlement Agreement in one or more of the following forms, in order to secure the full and final completion of Work by Respondents:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA;
- c. a trust fund administered by a trustee acceptable in all respects to EPA;
- d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;
- e. a written guarantee to pay for or perform the Work provided by one or more parent companies of Respondents, or by one or more unrelated companies that have a substantial business relationship with at least one of Respondents; including a demonstration that any such guarantor company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or
- f. demonstration of sufficient financial resources to pay for the Work made by one or more of Respondents, which shall consist of a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).

120. If Respondents elect to utilize the forms provided in Paragraphs 119.e. and/or 119.f. and Respondents or guarantors have provided similar demonstration at other RCRA, CERCLA, TSCA, or other federally-regulated Sites, the amount for which Respondents are providing financial assurance at those Sites should be added to the estimated cost of the Work for purposes of determining the total dollar amount required to satisfy the requirements of 40 C.F.R. Part 264.143(f).

121. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 119, above. In addition, if at any time EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondents shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

122. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount initially set, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA.

123. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section.

XXVIII. INTEGRATION/APPENDICES

124. This Settlement Agreement and its appendices and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), or other documents that will be developed pursuant to this Settlement Agreement and become incorporated into and enforceable under this Settlement Agreement constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

"Appendix 1" is the map of the Site.

"Appendix 2" is the Statement of Work.

XXIX. ADMINISTRATIVE RECORD

125. EPA will determine the contents of the administrative record file for selection of the remedy for one or more remedies for the Site. Respondents shall submit to EPA documents developed during the course of the RI/FS upon which selection of the response action may be

based. Upon request of EPA, Respondents shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports, and other reports. Upon request of EPA, Respondents shall additionally submit any previous studies conducted under State, local, or other federal authorities relating to selection of the response action, and all communications between Respondents and the State, local, or other federal authorities concerning selection of the response action. At EPA's request, Respondents shall establish a community information repository at or near the Site, to house one copy of the administrative record.

XXX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

126. This Settlement Agreement shall become effective five (5) business days after the date it is signed by or on behalf of the Director of the Emergency and Remedial Response Division of EPA Region 2. All times for performance of actions or activities required herein will be calculated from said Effective Date.

127. This Settlement Agreement may be amended by mutual agreement of EPA and Respondents. Amendments shall be in writing and shall be effective when signed by the Director of the Emergency and Remedial Response Division of EPA Region 2.

128. No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXXI. NOTICE OF COMPLETION OF WORK

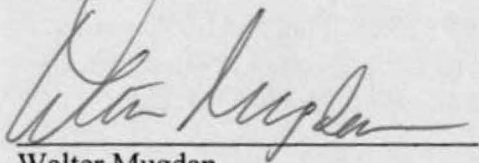
129. Upon Completion of the Work required by this Settlement Agreement, Respondents shall submit to EPA a written certification, with supporting documentation, that the Work required under this Settlement Agreement has been performed. This certification shall be signed by an authorized representative of Respondents and shall include the following statement:

"I certify that, to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of this document and attachments, the information contained in and accompanying this document is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations."

Upon a determination by EPA (following its receipt of the above-referenced certification) that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to payment of Future Response Costs (if any remain unpaid) or record retention, EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondents, provide

a list of the deficiencies, and require that Respondents modify the RI/FS Work Plan if appropriate in order to correct such deficiencies, in accordance with Paragraph 49 (Modification of the Work Plan. In that event, Respondents shall modify the RI/FS Work Plan and implement the modified plan, subject to their right to invoke dispute resolution under Section XVI (Dispute Resolution). Failure by Respondents to implement the approved modified RI/FS Work Plan shall be a violation of this Settlement Agreement.

U.S. ENVIRONMENTAL PROTECTION AGENCY



DATE: Sept. 30, 2013

Walter Mugdan

Director

Emergency and Remedial Response Division

U.S. Environmental Protection Agency

Region 2

Dewey Loeffel Landfill Superfund Site
Administrative Settlement Agreement on Consent, Index No. CERCLA-02-2013-2008

CONSENT

The Respondent identified below has had an opportunity to confer with EPA regarding this Settlement Agreement. Respondent hereby consents to the issuance of this Settlement Agreement and to its terms. The individual executing this Settlement Agreement on behalf of Respondent certifies under penalty of perjury under the laws of the United States that he or she is fully and legally authorized to agree to the terms and conditions of this Settlement Agreement and to bind Respondent thereto.

GENERAL ELECTRIC COMPANY

A. R. KL
Signature

SEPT. 30, 2013
Date

ANN R. KLEE
Printed name

VICE PRESIDENT, EH&S
Title

Dewey Loeffel Landfill Superfund Site
Administrative Settlement Agreement on Consent, Index No. CERCLA-02-2013-2008

CONSENT

The Respondent identified below has had an opportunity to confer with EPA regarding this Settlement Agreement. Respondent hereby consents to the issuance of this Settlement Agreement and to its terms. The individual executing this Settlement Agreement on behalf of Respondent certifies under penalty of perjury under the laws of the United States that he or she is fully and legally authorized to agree to the terms and conditions of this Settlement Agreement and to bind Respondent thereto.

SI GROUP, INC.

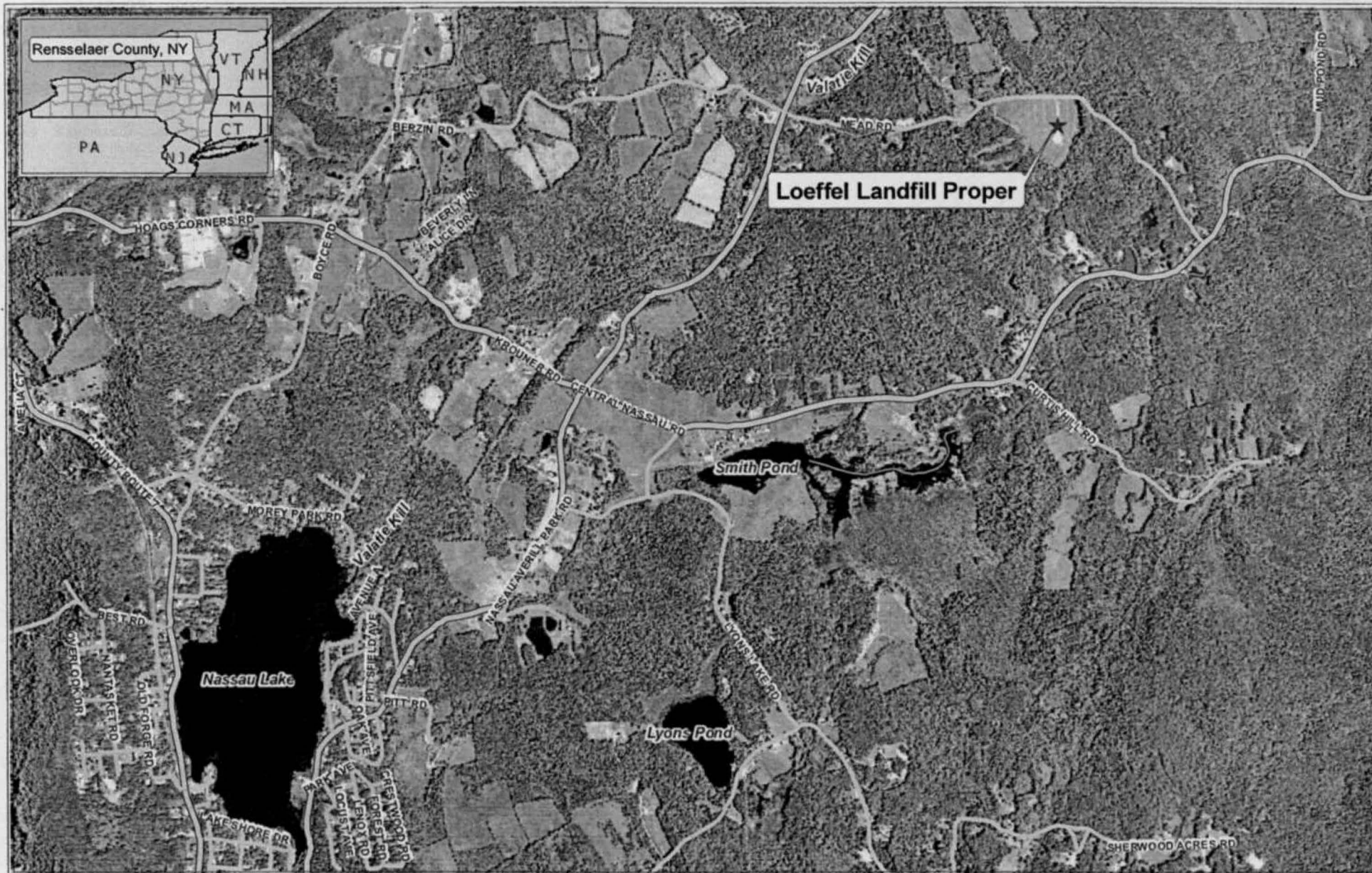
Richard P. Barlow
Signature

September 27, 2013
Date

Richard P Barlow
Printed name

Sr. VP. CFO & Treasurer
Title

APPENDIX 1



Map created using NAIP imagery data from USGS.

Map Creation Date: 23 March 2011

Coordinate system: New York State Plane East

FIPS: 3101

Datum: NAD83

Units: Feet

0 2,000 4,000
Feet



Figure 1
Loeffel Landfill Site Overview
Dewey Loeffel Landfill
Nassau, New York

APPENDIX 2

APPENDIX 2

STATEMENT OF WORK FOR REMEDIAL INVESTIGATION AND FEASIBILITY STUDY OF THE LANDFILL AND THE GROUNDWATER **DEWEY LOEFFEL LANDFILL SUPERFUND SITE** Nassau, Rensselaer County, New York

I. INTRODUCTION

A. The purpose of the remedial investigation/feasibility study ("RI/FS") is to investigate the nature and extent of contamination for the Landfill ("LF") and Groundwater ("GW") components (defined below) of the Dewey Loeffel Landfill Superfund Site (the "Site"), and develop and evaluate potential remedial alternatives for those components. The RI and FS are interactive and may be conducted concurrently so that the data collected in the RI influences the development of remedial alternatives in the FS, which in turn affects the data needs and the scope of treatability studies, if needed.

B. The Site includes the following four components:

1. Landfill ("LF") defined as the Dewey Loeffel Landfill proper, including contaminated soils associated with prior landfill operations and leachate and any other areas where contaminants may have migrated, but not including the Groundwater, the Southern Drainageway, and the Western Drainageway, as defined below.
2. Groundwater ("GW") defined as all groundwater contamination at the Site and any other areas where contaminants may have migrated, but not including the LF, the Southern Drainageway, and the Western Drainageway.
3. The Southern Drainageway ("SD") defined as the southern drainage ditch, Valley Stream, Smith Pond, and any other areas where contaminants may have migrated, but not including the GW, the LF, and the Western Drainageway.
4. Western Drainageway ("WD"), defined as the northwestern drainage ditch, former Mead Road Pond, Tributary T11A, Valatie Kill, Nassau Lake, and any other area where contaminants have migrated, but not including the LF, the GW, and the SD.

This Statement of Work ("SOW") applies to two of these components – namely, the LF and the GW. All provisions of this SOW exclude the SD and the WD unless otherwise expressly provided.

C. The RI/FS shall be conducted in a manner that minimizes environmental impacts in accordance with EPA Region 2 Clean and Green Policy (available at www.epa.gov/region02/superfund/green_remediation/policy.html) to the extent consistent with

the National Contingency Plan ("NCP"), 40 CFR Part 300. Respondents shall follow Guidance on Systematic Planning using the Data Quality Objectives Process ("QA/G-4") EPA/240/B-06/001 February 2006, in planning and conducting the RI/FS.

D. Respondents shall conduct the RI/FS and shall produce RI and FS reports that are in accordance with this SOW, the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (U.S. EPA, OSWER Directive # 9355.3-01, October 1988 or subsequently issued guidance), and any other guidance that EPA uses in conducting a RI/FS, as well as any additional requirements in the Administrative Settlement Agreement and Order on Consent, Index No. CERCLA-02-2013-2008, ("Settlement Agreement"). The RI/FS Guidance describes the report format and the required report content. Respondents shall furnish all necessary personnel, materials, and services needed for, or incidental to, the performance of the RI/FS, except as otherwise specified in the Settlement Agreement.

E. At the completion of the RI/FS, EPA will be responsible for the selection of the remedy for the LF and GW components of the Site and will document the remedy selection in a Record of Decision ("ROD"). The remedial action alternative selected by EPA will meet the cleanup standards specified in CERCLA Section 121, 42 U.S.C. § 9621. That is, the selected remedial action will be protective of human health and the environment, will be in compliance with, or include a waiver of, applicable or relevant and appropriate requirements of other laws ("ARARs"), will be cost-effective, will utilize permanent solutions and alternative treatment technologies or resource recovery technologies, to the maximum extent practicable, and will address the statutory preference for treatment as a principal element. The final RI/FS report, as adopted by EPA, and the baseline risk assessment will, with the administrative record, form the basis for the selection of the remedy for the Site and will provide the information necessary to support the development of the ROD.

F. As specified in CERCLA Section 104(a) (1), 42 U.S.C. § 9604(a)(1), EPA will provide oversight of Respondents' activities throughout the RI/FS. Respondents shall support EPA's initiation and conduct of activities related to the implementation of oversight activities.

II. TASK 1 - SITE CHARACTERIZATION SUMMARY REPORT

A. Within seventy-five (75) days after the Effective Date of the Settlement Agreement, or such longer time as specified or agreed to by EPA, Respondents shall submit to EPA a Site Characterization Summary Report ("SCSR") for the LF and GW components of the Site. The overall objective of site characterization is to describe areas of the LF and GW at the Site that may pose a threat to human health or the environment. This is accomplished by determining the Site's physiography, geology, and hydrology. Potential surface and subsurface pathways of migration and locations of contaminant reservoirs shall be defined. Respondents shall identify the sources of contamination and characterize the nature, extent, and volume of the sources of contamination, including their physical and chemical constituents as well as their concentrations at incremental locations relative to background concentrations in the affected media. Potential contaminant degradation processes shall be evaluated. Using this information, contaminant fate and transport is estimated. The data shall be discussed and shall be summarized

in graphical and tabular form. Relevant physical information (e.g., the presence of free phase material) and information regarding the fate and transport of chemical constituents shall be summarized.

For the SCSR, all available existing data for the LF and GW components of the Site shall be thoroughly compiled, reviewed and summarized by Respondents. This data includes, but is not limited to, the results of previous investigations of the Site, historical information about the Site, including aerial photographs, and other available information. Any data that cannot be obtained from the New York State Department of Environmental Conservation ("NYSDEC") or other governmental agencies in time to be included in the SCSR shall be submitted to EPA upon receipt and, depending on when the data are received, incorporated into the development of the RI/FS Work Plan or incorporated into the SCSR Addendum. Respondents shall provide EPA with a detailed description of the efforts made to obtain the relevant data from the NYSDEC and other governmental agencies and the results of said efforts.

The SCSR shall include a preliminary Conceptual Site Model ("CSM") for the LF and GW components of the Site (including the migration of groundwater to surface water) and shall identify any additional data necessary to complete the RI/FS. A narrative summary and compiled spreadsheets, maps, graphs and figures of the following shall be included. In addition, the SCSR for the LF and GW components of the Site shall include, but not be limited to, the following:

1. A summary and an electronic database of all sampling data, with coordinates referenced to a common datum and sampling dates;
2. A table or series of related tables of all available sampling results from monitoring wells, both inside and outside the slurry wall/landfill, including concentration data and head measurements;
3. A table or series of related tables presenting all available groundwater quality data as ratios of tetrachloroethene ("PCE") and daughter products – i.e., PCE:trichloroethene ("TCE"); TCE:cis-1,2-dichloroethene ("cDCE"); cDCE:vinyl chloride ("VC"); VC:ethane;
4. A table or series of related tables presenting time-series data of all available concentrations, effective pumping rates, and mass removed from the extraction wells and the leachate collection system; and a table of screened intervals for the extraction wells;
5. A table or series of related tables presenting time-series data of all available concentrations and effective pumping rates for the residential wells with point-of-extraction treatment systems, along with pumpage data from original well logs if available; and
6. A compilation of the structural geology evaluations that have been conducted (e.g., surface geophysical data, including very low frequency ("VLF"), seismic, and fracture trace analyses). A summary map or series of summary maps shall also be developed.

B. Within thirty (30) days after Respondents' submittal of the SCSR, or such longer time as specified in writing by EPA, Respondents shall make a presentation to EPA and the State on the findings of the SCSR. EPA will approve the SCSR or otherwise respond pursuant to Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement. When approved by EPA, the SCSR shall be incorporated into the RI Report for the LF and GW components of the Site which is to be prepared in accordance with this SOW.

III. TASK 2 - RI/FS WORK PLAN

A. RI/FS Work Plan and Schedule. Within sixty (60) days after EPA's written authorization to proceed based on the SCSR, Respondents shall submit to EPA a detailed Work Plan for the completion of the RI/FS for the LF and GW components of the Site. The SCSR shall be used for planning the RI/FS Work Plan. The RI/FS Work Plan shall include, among other things, a detailed schedule for RI/FS activities for each of the components being investigated at the Site.

The RI/FS Work Plan shall supplement existing data and identify data gaps in current understanding of the sources of contamination, nature and extent of contamination, and site characteristics as they relate to the LF and GW (including the migration of groundwater to surface water). The RI/FS Work Plan shall propose appropriate investigations and data collection to fill those data gaps in accordance with the requirements set forth below in this Section of the SOW. In proposing such investigations, Respondents may establish a priority of time frames, subject to EPA approval, for performance of the various activities to fill the data gaps, and may schedule the proposed investigative activities so as to take into account, in the GW investigation, the hydrogeologic investigation activities to be conducted by Respondents under the Design Report/Implementation Plan ("DR/IP") submitted by Respondents and approved by EPA under the April 2012 Administrative Settlement Agreement and Order on Consent for a Removal Action, Index No. CERCLA 02-2012-2005 ("Removal AOC"). The RI/FS Work Plan shall include, as part of the investigation, the installation of well(s) to define the extent of the groundwater plume. Respondents may propose modifications, subject to EPA approval, to the later groundwater investigations described in the RI/FS Work Plan (e.g., the number, location, and depth of groundwater monitoring wells or borings), if appropriate, based on the results of initial investigations.

EPA will approve the RI/FS Work Plan or otherwise respond pursuant to Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement. The RI/FS Work Plan shall satisfy the following general requirements:

1. Define Sources of Contamination

Respondents shall locate each source of contamination in each media. For each such location, the areal extent and depth of contamination shall be determined by sampling at incremental depths on a sampling grid or appropriate boring or well locations or by other sampling means, as defined in the RI/FS Work Plan. The physical characteristics and

chemical constituents and their concentrations shall be determined for all known and discovered sources of contamination. The amount of contaminant mass that exists in the bedrock matrix reservoir shall be estimated. Respondents shall conduct sufficient sampling to define the boundaries of the contaminant sources for the LF and GW to the level established in the Quality Assurance Project Plan ("QAPP") and Data Quality Objectives ("DQOs").

Defining the source of contamination shall include analyzing the potential for contaminant release (e.g., long term leaching from soil and diffusion from rock matrix), contaminant mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess treatment technologies.

2. Describe the Nature and Extent of Contamination

Respondents shall gather information to describe the nature and extent of contamination during the field investigation. To describe the nature and extent of contamination, Respondents shall utilize the information on the Site's physical and biological characteristics and sources of contamination to give a preliminary estimate of the contaminants that may have migrated, to what extent they have migrated, and their potential to migrate further. Respondents shall then implement a monitoring program and any other study program identified in the RI/FS Work Plan (which includes the QAPP) such that by using analytical techniques sufficient to detect and quantify the concentration of contaminants in all media, including rock matrix, the amount of contaminant degradation occurring and the migration of contaminants through the various media at the Site can be determined. In addition, Respondents shall gather data for calculations of contaminant fate and transport. This process shall continue until the area and depth of contamination are known to the level of contamination established in the QAPP and DQOs. The information on the nature, extent and migration potential of contamination shall be used to determine the level of risk presented by the LF and GW components of the Site. Respondents shall use this information to help to determine aspects of the appropriate remedial action alternatives to be evaluated.

3. Evaluate Site Characteristics

Respondents shall analyze and evaluate the data for the LF and GW components of the Site to: (1) describe physical and biological characteristics, (2) describe contaminant source characteristics, (3) determine the nature and extent of contamination, (4) determine the contaminant reservoir represented by the rock matrix, and (5) determine the contaminant fate and transport; and as necessary to develop site-specific human health and ecological risk assessments. Results of the Site's physical characteristics, source characteristics, rock matrix and fracture characteristics, and extent and mobility of contamination analyses shall be utilized in the analysis of contaminant fate and transport. The evaluation shall include the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. Where modeling is appropriate, such models shall be

identified to EPA in a technical memorandum prior to their use. All data and programming, including any proprietary programs, shall be made available to EPA together with a sensitivity analysis. Models proposed to be used with respect to the LF and/or GW shall be subject to EPA's approval and shall be utilized in accordance with subsection 5 below. Analysis of data collected for characterization of the Site shall meet the DQOs developed in the QAPP (or as revised during the RI).

4. Data Management Procedures

Respondents shall consistently document the quality and validity of field and laboratory data compiled during the RI.

a. Document Field Activities

Information gathered during characterization of the Site shall be consistently documented and adequately recorded by Respondents in field logs and laboratory reports. The method(s) of documentation must be specified in the Work Plan and QAPP. Field logs or dedicated field log-books must be utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports must document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

b. Maintain Sample Management and Tracking

Respondents shall maintain field reports, sample shipment records, analytical results, and quality assurance/quality control ("QA/QC") reports to ensure that only validated analytical data are reported and utilized in the risk assessment and evaluation of remedial alternatives. Analytical results developed under the Work Plan must be accompanied by, or cross-referenced to, a corresponding QA/QC report when included in the SCSR Addendum (discussed below) for the LF and GW components of the Site. In addition, Respondents shall safeguard chain of custody forms and other project records to prevent loss, damage, or alteration of project documentation.

5. Fate and Transport Model Memorandum

At EPA's request, Respondents shall submit a memorandum on a fate and transport model, unless they can demonstrate to EPA's satisfaction that such a model is unnecessary. If EPA determines that a fate and transport model is required and so notifies Respondents, Respondents shall, within ninety (90) days thereafter, or such longer time as specified in writing by EPA, submit the memorandum on the model. EPA will approve the memorandum or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement.

6. Reuse Assessment

At EPA's request, Respondents shall perform a Reuse Assessment. If EPA determines that a Reuse Assessment is required and so notifies Respondents, Respondents shall, within forty-five (45) days thereafter, submit a Reuse Assessment Report. The Reuse Assessment Report should provide sufficient information to develop realistic assumptions of the reasonably anticipated future uses for the LF and GW at the Site. Respondents shall prepare the Reuse Assessment Report in accordance with EPA guidance including, but not limited to, "Reuse Assessment: A Tool to Implement the Superfund Land Use Directive," OSWER Directive 9355.7-06P (June 4, 2001), "Considering Reasonably Anticipated Future Land Uses and Reducing Barriers to Reuse at EPA-lead Superfund Remedial Site," OSWER Directive 9355.7-19 (March 17, 2010), or subsequently issued guidance. EPA will approve the Reuse Assessment Report or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement.

The RI/FS Work Plan for the LF and GW components of the Site shall address, but not be limited to, the following investigations:

1. Installation of additional ground water monitoring wells, to define the horizontal and vertical extent of the groundwater contaminant plume currently emanating from the landfill and to estimate the temporal trend of contamination in the down gradient direction;
2. Inclusion of MNA parameters for groundwater sampling;
3. Evaluation of matrix diffusion within the bedrock formation, including measuring the contaminant mass and total organic carbon in the rock matrix, and determining the primary and secondary porosity and the geometry/nature of fracture apertures in the rock;
4. Identification of the attitude and frequency of dominant fracture sets within the bedrock and any major fracture or fracture system that intersects the contaminated groundwater;
5. Evaluation of groundwater flow in the bedrock by measuring groundwater head at discrete depths;
6. Establishment of a water budget for the landfill;
7. Sampling, if determined necessary by EPA, of groundwater to surface water discharge in the SD;
8. Performance of a vapor intrusion investigation;
9. Evaluation of the existing slurry wall performance; and
10. Soil sampling to evaluate the extent of contaminants in areas near and around the LF boundary (such as Mead Road and areas to the east of the LF boundary) but excluding the WD and SD (which are not the subject of this Settlement Agreement).

The RI/FS Work Plan for the LF and GW components of the Site shall also include the following:

1. A QAPP, which shall be prepared consistent with the Uniform Federal Policy for Quality Assurance Project Plans ("UFP-QAPP"), Parts 1, 2 and 3, EPA-505-B-04-900A, B and C, March 2005 or newer, and other guidance documents referenced in the aforementioned guidance documents and in accordance with Section XII (Quality, Assurance, Sampling, and Access to Information) of the Settlement Agreement. The UFP documents may be found at:
http://www.epa.gov/fedfac/documents/intergov_qual_task_force.htm. In addition, the guidance and procedures located in the EPA Region 2 DESA/HWSB web site:
<http://www.epa.gov/region02/qa/documents.htm>, as well as other OSWER directives and EPA Region 2 policies shall be followed, as appropriate.
 - a. All sampling and analyses performed pursuant to this Settlement Agreement shall conform to EPA policy and guidance regarding sampling, quality assurance, quality control, data validation, and chain of custody procedures. Respondents shall include a description of how sampling data will be submitted in a manner that is consistent with the Region 2 Electronic Data Deliverable ("EDD") format (information available at www.epa.gov/region02/superfund/medd.htm). Respondents shall incorporate these procedures into the QAPP in accordance with the Uniform Federal Policy for Implementing Quality Systems ("UFP-QS"), EPA-505-F-03-001, March 2005; UFP-QAPP, Parts 1, 2, and 3, EPA-505-B-04-900A, B, and C, March 2005 or newer; and other guidance documents referenced in the aforementioned guidance documents. Subsequent amendments to the above, upon notification by EPA to Respondents of such amendments, shall apply only to procedures conducted after such notification.
 - b. The QAPP shall provide for collection of data sufficient to delineate site-related contamination in potentially affected media at the LF and GW components of the Site, to the extent necessary to select an appropriate remedy for those components; to evaluate cross-media contaminant transport relevant to those components (e.g., ground water to surface water) as necessary to support the assessment of risks associated with potential or actual exposures to site-related contamination at the LF and in the GW under current and reasonably likely future conditions; and to evaluate remedial alternatives for those components that address site-related contamination (for example, sufficient engineering data for the projection of contaminant fate and transport and development and screening of remedial action alternatives, including information to assess treatment technologies).
 - c. The QAPP shall specifically include the following items:

- i. An explanation of the way(s) the sampling, analysis, testing, and monitoring will produce data for the RI/FS;
 - ii. A detailed description of the sampling, analysis, and testing to be performed, including sampling methods, analytical and testing methods, sampling locations and frequency of sampling to be implemented to sample and analyze the contaminants found in groundwater, leachate, sediment, bedrock, surface water, air, and soil, if necessary;
 - iii. A description of how sampling data and a site base map will be submitted in a manner that is consistent with the Region 2 Electronic Data Deliverable (EDD) format (information available at www.epa.gov/region02/superfund/medd.htm);
 - iv. A map depicting sampling locations (to the extent that these can be defined when the QAPP is prepared); and
 - v. A schedule for performance of the specific tasks in subparagraphs (c)(i)-(iii) of this Section.
- d. In the event that additional sampling locations, testing, and analyses are required or other alterations of the QAPP are required, Respondents shall submit to EPA a memorandum documenting the need for additional data to EPA Project Coordinator within thirty (30) days of identification. EPA in its sole discretion will determine whether the additional data shall be collected by Respondents and whether it shall be incorporated into plans, reports and other deliverables.
- e. In order to provide quality assurance and maintain quality control with respect to all samples to be collected, Respondents shall ensure the following:
 - i. Quality assurance and chain of custody procedures shall be performed in accordance with standard EPA protocol and guidance, including the guidance provided in the EPA Region 2 Quality Assurance Homepage, <http://www.epa.gov/region2/qa/>, and the guidelines set forth in this Settlement Agreement;
 - ii. Once laboratories have been chosen, each laboratory's quality assurance plan ("LQAP") shall be submitted for review by EPA. In addition, the laboratory, or Respondents on behalf of the laboratory, shall submit to EPA current copies (within the past twelve months) of laboratory certification provided from either a State or Federal Agency which conducts certification. The

certification shall be applicable to the matrixes and analyses that are to be conducted. If the laboratory does not participate in the Contract Laboratory Program ("CLP"), it must submit to EPA the results of performance evaluation ("PE") samples for the constituents of concern from within the past twelve months or it must complete PEs for the matrixes and analyses to be conducted and the results must be submitted with the LQAP;

- iii. The laboratories utilized for analyses of samples must perform all analyses according to approved EPA methods or, if requested by Respondents and approved by EPA, an alternate method;
 - iv. Unless indicated otherwise in the approved QAPP, upon receipt from the laboratory, all data shall be validated;
 - v. The validation package (checklist, report and Form I's containing the final data) submitted to EPA shall be prepared in accordance with the provisions of Subparagraph vi. below as part of the RI Report submittal;
 - vi. Respondents shall assure that all analytical data that are validated as required by the QAPP are validated according to the latest version of EPA Region 2 data validation Standard Operating Procedures. Region 2 Standard Operating Procedures are available at: <http://www.epa.gov/region02/qa/documents.htm>;
 - vii. Unless indicated otherwise in the QAPP, Respondents shall require deliverables equivalent to CLP data packages from the laboratory for analytical data. Upon EPA's request, Respondents shall submit to EPA the full documentation (including raw data) for this analytical data. EPA reserves the right to perform an independent data validation, data validation check, or qualification check on generated data; and
 - viii. Respondents shall insert a provision in their contract(s) with the laboratory utilized for analyses of samples that requires granting access to EPA personnel and authorized representatives of the EPA for the purpose of ensuring the accuracy of laboratory results related to the Site.
2. A Health and Safety Plan ("HSP"), which shall conform to 29 CFR §1910.120, "OSHA Hazardous Waste Operations Standards," and EPA guidance document, "Standard Operating Safety Guidelines" (OSWER, 1988). EPA does not "approve" the HSP.

3. A Stage 1A Cultural Resources Survey ("CRS"), to address the requirements of the National Historic Preservation Act (see CERCLA Compliance with Other Laws Manual: Part II: Clean Air Act and Other Environmental Statutes and State Requirements, OSWER Directive 9234.1-02, August 1989, available at www.epa.gov/superfund/policy/remedy/pdfs/540g-89009-s.pdf.) Should EPA determine after a review of the recommendations contained in the Stage 1A CRS that additional cultural resource investigations (Stage 1B CRS, Stage 2 CRS, etc.) will be necessary, Respondents shall submit a detailed CRS Work Plan for EPA approval prior to commencing the additional investigations.

B. EPA will approve the RI/FS Work Plan or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement.

IV. TASK 3 - COMMUNITY RELATIONS

To the extent requested by EPA, Respondents shall provide information relating to the work required hereunder for EPA's use in developing and implementing a Community Involvement Plan. As requested by EPA, Respondents shall participate in the preparation of appropriate information to be disseminated to the public, and participate in public meetings at EPA's request, which may be held or sponsored by EPA

V. TASK 4 - IMPLEMENTATION OF RI/FS WORK PLAN

A. Following EPA's written approval or modification of the RI/FS Work Plan pursuant to Section XI of the Settlement Agreement, Respondents shall implement the provisions of the RI/FS Work Plan. Respondents shall notify EPA at least fourteen (14) days in advance of the field work regarding the planned dates for field activities, including ecological field surveys, geophysical surveys, excavation, installation or modification of wells, initiating sampling, installation and calibration of equipment, pump tests, and initiation of analysis and other field investigation activities.

B. Respondents shall provide EPA with validated analytical data within seventy-five (75) days after each sampling activity. Additionally, if requested by EPA, Respondents shall make all data available to EPA upon receipt from the lab (prior to validation). All data submitted to EPA shall be compiled in a database format or spreadsheet acceptable to EPA and shall show the location, medium and results for each sample.

C. Within seven (7) days after completion of each phase of field activities, Respondents shall so advise EPA in writing through progress reports or updates.

D. Within sixty (60) days after submission to EPA of the final set of validated data, or such longer time as specified or agreed to by EPA, Respondents shall submit to EPA a SCSR Addendum. Within thirty (30) days after Respondents' submittal of the SCSR Addendum, or such longer time as specified in writing by EPA, Respondents shall make a presentation to EPA and the State on the findings of the SCSR Addendum. EPA will approve the SCSR Addendum

or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement. When approved by EPA, the SCSR Addendum shall be incorporated into the final RI Report when it is completed.

E. Respondents shall provide a monthly progress report and participate in meetings with EPA at major milestones in the RI/FS process, as described herein at Section II (Task 1 - Site Characterization Summary Report); Section V (Task 4.D - Site Characterization Summary Report Addendum); Section X (Task 9.B, Development and Screening of Remedial Alternatives Technical Memorandum); and Section XI (Task 10.A, Feasibility Study Report).

VI. TASK 5 - IDENTIFICATION OF CANDIDATE TECHNOLOGIES

An Identification of Candidate Technologies Memorandum shall be submitted by Respondents within forty-five (45) days after Respondents' submission to EPA of the last set of final validated analytical data; provided, however, that if EPA and Respondents agree, Respondents may submit a portion of that memorandum at an earlier time. The candidate technologies identified shall include innovative treatment technologies (as defined in the RI/FS Guidance) where appropriate. The listing of candidate technologies shall cover the range of technologies required for alternatives analysis. Respondents shall conduct a literature survey to gather information on performance, relative costs, applicability, removal efficiencies, operation and maintenance (O&M) requirements, and implementability of candidate technologies.

EPA will approve the Identification of Candidate Technologies Memorandum or otherwise respond in accordance with Section XI (Reporting and EPA Approval of Submissions) of the Settlement Agreement. If EPA determines that practical candidate technologies have not been sufficiently demonstrated, or cannot be adequately evaluated for this Site on the basis of available information, EPA may require that treatability testing be conducted as described in Section VII (Task 6: Treatability Studies; as necessary).

VII. TASK 6 - TREATABILITY STUDIES; AS NECESSARY

Treatability testing shall be performed by Respondents, as necessary, to assist in the detailed analysis of alternatives. Once a decision has been made to perform treatability studies, the following activities shall be performed by Respondents.

A. Evaluate Treatability Studies

EPA, with input from Respondents, will decide on the type of treatability testing to use (e.g., bench versus pilot). Because of the time required to design, fabricate, and install pilot scale equipment as well as perform testing for various operating conditions, the decision to perform pilot testing should be made as early in the process as possible to minimize potential delays of the FS.

B. Treatability Testing Work Plan

Within ninety (90) days after EPA's written determination that treatability testing is necessary and the decision on the type of treatability testing to be used is made, Respondents shall submit a Treatability Testing Work Plan, including a field sampling and analysis plan and a schedule. The Treatability Testing Work Plan shall describe the background of the Site, remedial technology(ies) to be tested, test objectives, experimental procedures, treatability conditions to be tested, measurements of performance, analytical methods, data management and analysis, health and safety, and residual waste management. The DQOs for treatability testing should be documented as well. If pilot scale treatability testing is to be performed, the Work Plan shall include a description of pilot plant installation and start-up, pilot plant operation and maintenance procedures, operating conditions to be tested, a sampling plan to determine pilot plant performance, and a detailed health and safety plan. If testing is to be performed off-Site, Respondents shall address all necessary permitting requirements to the satisfaction of appropriate authorities.

EPA will approve the Treatability Testing Work Plan or otherwise respond in accordance with Section XI (Reporting and EPA Approval of Submissions) of the Settlement Agreement.

C. Treatability Testing QAPP

If the original QAPP is not adequate for defining the activities to be performed during the treatability test, a separate Treatability Testing QAPP, or amendment to the original QAPP for the Site, shall be prepared by Respondents for EPA review and approval, and shall be submitted at the same time as the Treatability Testing Work Plan. EPA will approve the Treatability Testing QAPP or otherwise respond in accordance with Section XI (Reporting and EPA Approval of Submissions) of the Settlement Agreement.

D. Treatability Testing HSP

If the original HSP is not adequate for defining the activities to be performed during the treatment tests, a separate or amended HSP shall be developed by Respondents and submitted for EPA review and comment. Section III (Task 2 – RI/FS Work Plan) provides additional information on the requirements of the HSP. EPA does not "approve" the treatability testing HSP.

E. Treatability Testing Evaluation Report

Within forty-five (45) days after completion (including field work and receipt of all laboratory results, including validated laboratory results if data validation is required) of any treatability testing or such longer time as specified or agreed to by EPA, Respondents shall submit a Treatability Testing Evaluation Report to EPA.

The Treatability Testing Evaluation Report shall analyze and interpret the treatability testing results. Depending on the sequences of activities, this report may be a part of the RI/FS Report or a separate deliverable. The report shall evaluate each technology's effectiveness, implementability, cost and actual results as compared with predicted results. The report shall also evaluate full scale application of the technology, including a sensitivity analysis identifying the key parameters affecting full-scale operation.

EPA will approve the Treatability Testing Evaluation Report or otherwise respond in accordance with Section XI (Reporting and EPA Approval of Submissions) of the Settlement Agreement.

VIII. TASK 7 - BASELINE RISK ASSESSMENT

Respondents shall prepare a Baseline Risk Assessment for the LF and GW components of the Site which shall be incorporated by Respondents into the RI. Respondents shall provide EPA with the following deliverables:

- A. Baseline Human Health Risk Assessment ("BHHRA")
 1. Potential current and future cancer risks and non-cancer hazards to human health under current and reasonably anticipated future land uses shall be identified and characterized in accordance with CERCLA, the NCP, and EPA guidance documents including, but not limited to, the RI/FS Guidance, "Land Use in the CERCLA Remedy Selection Process" (OSWER Directive No. 9355.7-04), Reuse Assessments: A Tool to Implement the Superfund Land Use Directive" (OSWER 9355.7-04, June 2001), and the definitions and provisions of "Risk Assessment Guidance for Superfund ("RAGS")," Volume 1, "Human Health Evaluation Manual," (December 1989) (EPA/540/1-89/002) and updates (RAGS Parts B, C, D, E, F and Part III available at: http://www.epa.gov/oswer/riskassessment/risk_superfund.htm). Other EPA guidance documents to be used in the development of risk assessments are identified in Attachment 1 to this SOW.
 2. Memorandum on Exposure Scenarios and Assumptions

Within sixty (60) days after approval or modification of the RI/FS Work Plan pursuant to Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement or such longer time as specified or agreed to by EPA, Respondents shall submit a Memorandum describing the exposure scenarios and assumptions for the BHHRA, taking into account the current and reasonably anticipated future use of the LF and GW at the Site based on Site conditions at the time the Memorandum is prepared. The Memorandum should include appropriate text describing the conceptual site model and exposure routes of concern for the

LF and GW at the Site, and include a completed RAGS Part D Table 1. This table shall describe the pathways that will be evaluated in the BHHRA, the rationale for their selection, and a description of those pathways that will not be evaluated and the rationale for excluding these pathways. In addition, the Memorandum shall include a completed RAGS Part D Table 4 describing the exposure pathway parameters with appropriate references to EPA's 1991 Standard Default Assumptions, the Supplemental Guidance for Developing Soil Screening Levels for Superfund sites (2002) and updates to this guidance developed by the EPA Superfund Program, or, where other, site-specific exposure assumptions are proposed, a detailed rationale and supporting basis for those assumptions, to be presented for EPA review and approval. In the event that chemicals with a mutagenic mode of action are identified (as described in USEPA 2005a,b and the Handbook for Implementing the Supplemental Cancer Guidance at Waste and Cleanup Sites al Cancer Guidance at Waste and Cleanup Sites (<http://www.epa.gov/oswer/riskassessment/sghandbook/chemicals.htm>), specific exposure assumptions for age groups 1 to younger than 16 shall be developed and submitted to EPA for evaluation and approval.

EPA will approve the Memorandum or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement.

3. Pathway Analysis Report ("PAR")

Respondents shall prepare and submit a PAR within sixty (60) days after Respondents' submission to EPA of the last set of validated data or EPA's approval of the *Memorandum on Exposure Scenarios and Assumptions*, whichever is later. The PAR shall be developed in accordance with OSWER Directive 9285.7-01D dated January 1998 (or more recent version), entitled, "*Risk Assessment Guidelines for Superfund Part D*" and other appropriate guidance in Attachment 1 and updated thereto. The PAR shall contain the information necessary for a reviewer to understand how the risks due to the LF and GW at the Site shall be assessed. The PAR shall build on the Memorandum on Exposure Scenarios and Assumptions (see VIII. Task 7.A.2 above) describing the risk assessment process and how the risk assessment shall be prepared. The PAR shall include completed RAGS Part D Tables 2, 3, 5, and 6 as described below. EPA will approve the PAR or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement. The PAR must be reviewed and approved by EPA prior to the submission of the BHHRA. The following information shall be included in the PAR:

- a. Chemicals of Potential Concern ("COPCs"). The PAR shall contain all the information necessary for a reviewer to understand how the risks from the LF and GW at the Site will be evaluated.

Based on the validated analytical data, Respondents shall list the hazardous substances present in all sampled media (e.g., groundwater, soils, etc.) excluding the WD and SD, and the COPCs as described in RAGS Part A.

- b. Table 2 - Selection of COPCs. COPCs for the LF and GW and associated concentrations in sample media for the PAR shall be determined utilizing all currently available media-specific validated analytical data generated during the RI/FS. The selection of COPCs shall follow RAGS Part A; and before hazardous substances are eliminated as COPCs, they shall be evaluated against the residential and industrial screening levels in accordance with the current version of the "Regional Screening Levels for Chemical Contaminants at Superfund Sites" screening level/preliminary remediation goal website (http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm). The industrial screening level shall not be used as a basis for eliminating any hazardous substance as a COPC. In addition, background shall not be used as a basis to exclude COPCs. The COPCs shall be presented in completed RAGS Part Table 2 format.
- c. Table 3 - Media Specific Exposure Point Concentrations. Using the COPCs selected in Table 2, this Table shall summarize the Exposure Point Concentrations ("EPCs") for all COPCs for the various media at the LF and in the GW. The calculation of the Exposure Point Concentration shall follow the Supplemental Guidance to RAGS: Calculating the Concentration Term (1992), using EPA's ProUCL 4.1.00 Software or later versions (<http://www.epa.gov/osp/hstl/tsc/software.htm>), which evaluates the distribution of the data using Shapiro-Wilk's and Lilliefors's tests, in accordance with 2010 ProUCL's User's Guide (available at: http://www.epa.gov/osp/hstl/tsc/ProUCL_v4.1_user.pdf) and provides recommendations for EPCs, unless Respondents have previously proposed and EPA has approved use of another statistical technique for calculating the 95% Upper Confidence Limit ("UCL") on the mean of the data. In those cases where the 95% UCL exceeds the maximum, the maximum concentration shall be used as the EPC.
- d. Tables 5 and 6 - Toxicological Information. This section of the PAR shall provide the toxicological data (e.g., Cancer Slope Factors, Inhalation Unit Risk Factors, Reference Doses, Reference Concentrations, Weight of Evidence Classifications for Carcinogens, and adjusted dermal toxicological factors where appropriate) for the COPCs. Chemicals with a mutagenic mode of action need to be identified in Tables 5 and 6 consistent with the EPA Cancer Guidelines (USEPA, 2005a), Supplemental Guidance for Assessing Susceptibility from Early Life Exposure to Carcinogens (USEPA, 2005b), and Handbook for Implementing the Supplemental Cancer Guidance at Waste and Cleanup

Sites (available at:

<http://www.epa.gov/oswer/riskassessment/sghandbook/chemicals.htm>

The toxicological data shall be presented in completed RAGS Part D Tables 5 and 6. The sources of data in order of priority, based on the 2003 OSWER Directive 9285.7-53, are:

- Tier 1 – Integrated Risk Information System (IRIS) database (EPA, 2007).
- Tier 2 – Provisional Peer Reviewed Toxicity Values (“PPRTV”) – The Office of Research and Development/National Center for Environmental Assessment/Superfund Health Risk Technical Support Center (“STSC”) develops PPRTVs on a chemical specific basis when requested by EPA’s Superfund program. Provisional values shall either be obtained from the PPRTV webpage available at: <http://hhpprtv.ornl.gov/>, the “Regional Screening Levels for Chemical Contaminants at Superfund Sites,” or from Region 2.
- Tier 3 – Other Toxicity Values – Tier 3 includes additional EPA and non-EPA sources of toxicity information. Priority shall be given to those sources of information that are the most current, the basis for which is transparent and publicly available and which have been peer reviewed. Tier 3 values include toxicity values obtained from the California Environmental Protection Agency (“Cal EPA”) available at: <http://www.oehha.ca.gov/risk/chemicalDB/index.asp>., Agency for Toxic Substances and Disease Registry’s (“ATSDR’s”) Minimum Risk Levels (“MRLs”), and toxicity values obtained from the HEAST (EPA 1997b).

To facilitate a timely completion of the PAR, Respondents shall submit a list of chemicals for which IRIS values are not available to EPA as soon as identified thus allowing EPA to facilitate obtaining this information from EPA’s National Center for Environmental Assessment.

4. Baseline Human Health Risk Assessment Reporting

Within seventy-five (75) days after EPA’s approval of the PAR, Respondents shall submit to EPA a Baseline Human Health Risk Assessment (“BHHRA”) for inclusion in the RI. The submittal shall include completed RAGS Part D Tables 7 through 10 summarizing the calculated cancer risks and non-cancer hazards and appropriate text in the risk characterization with a discussion of uncertainties and critical assumptions (e.g., background concentrations and conditions). Respondents shall perform the BHHRA in accordance with the approach and parameters described in the Memorandum of Exposure Scenarios and Assumptions and the PAR, as described above, including a discussion of uncertainties and other qualifications (if any). Text and tables from these reports

previously reviewed by EPA shall be included in the appropriate sections of the BHHRA.

EPA will approve the BHHRA or otherwise respond in accordance with Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement. Upon approval by EPA, the BHHRA shall be incorporated into the RI Report.

B. Baseline Ecological Risk Assessment

1. Within sixty (60) days after Respondents' submission to EPA of the last set of final validated analytical data, or upon agreement of the parties that sufficient data exists, or at such other time as is specified or agreed to by EPA, Respondents shall submit a Screening Level Ecological Risk Assessment ("SLERA") in accordance with current Superfund ecological risk assessment guidance (Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments ("ERAGS"), USEPA, 1997 [EPA/540-R-97-006], OSWER Directive 9285.7-25, June 1997)). The SLERA shall include a comparison of the 95% UCL and maximum contaminant concentrations in each medium of concern for the LF and GW to appropriate conservative ecotoxicity screening values for such medium (if any), and should use conservative exposure estimates for the ecological receptors, considering site-specific conditions. The SLERA shall also include a recommendation as to whether the conduct of a full Baseline Ecological Assessment should be considered by EPA. EPA will approve the SLERA or otherwise respond in accordance with Section XI of the Settlement Agreement.
2. If EPA determines that a full Baseline Ecological Risk Assessment ("BERA") is required, and so notifies Respondents in writing, Respondents shall, within sixty (60) days thereafter or such longer time as specified or agreed to by EPA, submit a Scope of Work outlining the steps and data necessary to perform the BERA, including any amendments to the RI/FS Work Plan required to collect additional relevant data. The BERA Scope of Work shall identify any RI/FS Work Plan amendments or addenda, including establishment of a schedule for review and approval of additional field work, subject to EPA approval pursuant to Section XI (EPA Approval of Plans and Other Submissions) of the Settlement Agreement. EPA will approve the BERA Scope of Work or otherwise respond in accordance with Section XI (Reporting and EPA Approval of Submissions) of the Settlement Agreement.
3. Respondents shall notify EPA in writing within seven (7) days after completion of all field activities associated with the BERA, as identified in the BERA Scope of Work and performed under the approved RI/FS Work Plan addenda. Within sixty (60) days after submission to EPA of the final set of BERA-related validated data or such longer time as specified or agreed to by EPA, Respondents shall submit a BERA Report to EPA for inclusion in the RI Report. Actual and

potential ecological risks shall be identified and characterized in accordance with CERCLA, the NCP, and EPA guidances including, but not limited to, "Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments," (1997) (EPA/540-R-97-006), ERAGS, dated June 5, 1997 (or most recent guidance). Respondents shall evaluate and assess the risk to the environment posed by contaminants. As part of this subtask, Respondents shall perform the following activities:

- a. Respondents shall prepare a BERA Report that addresses the following:
 - i. Hazard Identification (sources). Respondents shall review available information on the hazardous substances present in the LF and/or GW (as applicable) at the Site and identify the major contaminants of concern;
 - ii. Dose-Response Assessment. Respondents shall identify and select contaminants of concern based on their intrinsic toxicological properties;
 - iii. Characterization of Site and Potential Receptors. Respondents shall identify and characterize environmental exposure pathways and the assessment endpoints, and develop an integrated ecological conceptual model. The conceptual model shall include a contaminant fate-and-transport diagram that traces the contaminants' movement from sources through the ecosystem to receptors that include the assessment endpoints;
 - iv. Select Chemicals, Indicator Species, and Endpoints. In preparing the assessment, Respondents shall select representative chemicals and indicator species (species which are especially sensitive to environmental contaminants) to represent the assessment endpoints and measurement end-points on which to concentrate;
 - v. Exposure Assessment. The exposure assessment shall identify the magnitude of actual or potential environmental exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed, considering the results of any field studies conducted to measure exposures to ecological receptors. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, Respondents shall develop reasonable maximum estimates of exposure for both current land use conditions and reasonably anticipated future land use conditions as they pertain to ecological habitats at the Site;

- vi. Toxicity Assessment/Ecological Effects Assessment. The toxicity and ecological effects assessment shall address the types of adverse environmental effects on survival, growth, and reproduction associated with chemical exposures, the relationships between magnitude of exposures and adverse effects, and the related uncertainties for contaminant toxicity. If field studies are conducted to assess such effects on ecological receptors, the toxicity and ecological effects assessment shall include an evaluation of whether those studies showed adverse effects on survival, growth, or reproduction attributable to the contaminants studied and at what levels, as well as the uncertainties in the study results;
 - vii. Risk Characterization. During risk characterization, chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment (which may include site-specific field studies) shall be compared to measured levels of contaminant exposure and/or the levels predicted through environmental fate and transport modeling. Alternatively, if site-specific field studies are conducted to assess potential ecological risks, the results of those studies shall be evaluated to characterize the risks to the ecological receptors studied. Consistent with EPA guidance (e.g., "Ecological Risk Assessment and Risk Management Principles for Superfund Sites," OSWER Directive 9285.7-28P, October 1999), the risk characterization shall focus on potential site-specific risks to local populations and communities of biological receptors. These evaluations shall determine whether concentrations of contaminants at or released from the LF and/or GW are affecting or could potentially affect the environment;
 - viii. Identification of Limitations/Uncertainties. Respondents shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the report; and
 - ix. Site Conceptual Model. Based on contaminant identification, exposure assessment, toxicity assessment, and risk characterization, Respondents shall revise the Preliminary Conceptual Site Model discussed in Section II of this SOW, as appropriate.
- b. EPA will approve the BERA Report or otherwise respond in accordance with Section XI of the Settlement Agreement. Upon approval by EPA, the BERA Report shall be incorporated into the RI Report.

IX. TASK 8 - REMEDIAL INVESTIGATION REPORT

Within sixty (60) days after EPA approval of the BHHRA Report, the SLERA Report, or (if required) the BERA Report, whichever is latest, Respondents shall prepare and submit a Remedial Investigation ("RI") Report that accurately establishes the site characteristics for the LF and GW components of the Site, including, but not limited to, identification of the contaminated media, and the potential for the contamination to migrate further, the degree to which contaminant degradation is occurring, and the physical boundaries of the contamination. This report shall summarize results of field activities to characterize the Site, sources of contamination, and the fate and transport of contaminants. Pursuant to this objective, Respondents shall obtain only the minimum essential amount of detailed data necessary to determine the key contaminants movement and extent of contamination. The key contaminants shall be selected based on persistence and mobility in the environment and the degree of hazard. Respondents shall use existing standards and guidelines such as drinking water standards, water quality criteria, and other criteria accepted by EPA as appropriate for the situation, which shall be used to evaluate effects on human and ecological receptors that may be exposed to the key contaminants above appropriate standards or guidelines. The RI Report shall incorporate information presented in the approved SCSR including all addenda, the BHHRA Report, the SLERA Report, and, if required, the BERA Report.

The RI Report shall be written in accordance with the "Guidance for Conducting Remedial Investigations/Feasibility Studies under CERCLA," OSWER Directive 9355.3-01, October 1988, Interim Final (or latest revision) and "Guidance for Data Usability in Risk Assessment," (EPA/540/G-90/008), September 1990 (or latest revision).

Respondents shall refer to the RI/FS Guidance for an outline of the report format and contents. EPA will approve the RI Report or otherwise respond in accordance with Section XI of the Settlement Agreement.

X. TASK 9 - FEASIBILITY STUDY - DEVELOPMENT AND SCREENING OF REMEDIAL ALTERNATIVES

Concurrently with the RI site characterization described in Sections III and V (Tasks 2 and 4 of this SOW, respectively), Respondents shall begin to develop and evaluate remedial action objectives for the LF and GW that at a minimum ensure protection of human health and the environment. The development and screening of remedial alternatives shall identify and develop an appropriate range of remedial action objectives. This range of alternatives shall include the following: 1) options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, including, at a minimum, the principal threats posed by the Site, but that vary in the types of treatment, the amount treated, and the manner in which long-term residuals or untreated wastes are managed; 2) options involving containment with little or no treatment; 3) options involving both treatment and containment; 4) options that remove or destroy waste; 5) innovative technologies to the extent practicable; and 6) a no-action alternative. The following activities shall be performed for the LF and GW as a function of the development and screening of remedial alternatives.

A. Development and Screening of Remedial Alternatives

1. Develop Remedial Action Objectives

Respondents shall develop remedial action objectives, which are medium-specific goals for protecting human health or the environment that specify the chemicals of concern ("COCs"), exposure route(s) and receptor(s) and preliminary remediation goals ("PRGs").

2. Develop General Response Actions

Respondents shall develop general response actions for each medium of interest defining containment, treatment, excavation, pumping, or other actions, singly or in combination to satisfy the remedial action objective.

3. Identify Areas or Volumes of Media

Respondents shall identify areas or volumes of media to which general response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The chemical and physical characterization of the Site shall also be taken into account.

4. Assemble and Document Alternatives

Respondents shall assemble selected representative technologies into alternatives for each affected medium or operable unit.

Together, all of the alternatives shall represent a range of treatment and containment combinations that shall address the LF and GW at the Site. A summary of the assembled alternatives and their related action-specific ARARs shall be prepared by Respondents for inclusion in the Development and Screening of Remedial Alternatives Technical Memorandum.

The reasons for eliminating alternatives during the preliminary screening process must be specified.

5. Refine Alternatives

Respondents shall refine the remedial alternatives to identify contaminant volume addressed by the proposed process and sizing of critical unit operations as necessary. Sufficient information shall be collected for an adequate comparison of alternatives. PRGs for each chemical in each medium shall also be modified as necessary to incorporate any new risk assessment information presented in the baseline risk assessment report. Additionally, action-specific ARARs shall be updated as the remedial alternatives are refined.

6. Conduct and Document Screening Evaluation of Each Alternative

Respondents may perform a final screening process based on short and long term aspects of effectiveness, implementability, and relative cost. Generally, this screening process is only necessary when there are many feasible alternatives available for detailed analysis. If necessary, the screening of alternatives shall be conducted to assure that only the alternatives with the most favorable composite evaluation of all factors are retained for further analysis. As appropriate, the screening shall preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives shall include options that use treatment technologies and permanent solutions to the maximum extent practicable.

B. Development and Screening of Alternatives Deliverables

Within sixty (60) days after the later of (a) EPA's approval of the BHHRA Report, the SLERA Report, or (if required) the BERA Report (whichever is latest) or (b) EPA's approval of Respondents' Treatability Testing Evaluation Report(s) (if treatability studies are undertaken), or such longer time as is specified or agreed to by EPA, Respondents shall submit a Development and Screening of Remedial Alternatives Technical Memorandum summarizing the work performed in, and the results of, each task in Section X.A above, including an alternatives array summary. The Memorandum shall also summarize the reasoning employed in screening, arraying alternatives that remain after screening, and identifying the action-specific ARARs for the alternatives that remain after screening. The Memorandum shall also provide an explanation for choosing any institutional or engineering controls as part of any remedial alternative, and the level of effort that will be required to secure, maintain, and enforce the control. Within twenty-one (21) days after submission of the Memorandum, Respondents shall make a presentation to EPA identifying the remedial action objectives and summarizing the development and preliminary screening of remedial alternatives. EPA will approve the Memorandum or otherwise respond in accordance with Section XI of the Settlement Agreement.

C. Detailed Analysis of Remedial Alternatives

The detailed analysis shall be conducted by Respondents to provide EPA with the information needed to allow for the selection of a remedy for the LF and GW components of the Site. This analysis is the final task to be performed by Respondents during the FS.

1. Detailed Analysis of Alternatives

Respondents shall conduct a detailed analysis of alternatives which shall consist of an analysis of each option against a set of nine evaluation criteria as set forth in 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis of all options using the same evaluation criteria as a basis for comparison.

2. Apply Nine Criteria and Document Analysis

Respondents shall apply the nine evaluation criteria to the assembled remedial alternatives to ensure that the selected remedial alternative will be protective of human health and the environment; will be in compliance with, or include a waiver of, ARARs; will be cost-effective; will utilize permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The evaluation criteria are: (1) overall protection of human health and the environment; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume; (5) short-term effectiveness; (6) implementability; (7) cost; (8) State (or support agency) acceptance; and (9) community acceptance.

For each alternative, Respondents shall provide: (1) a description of the alternative that outlines the remedial strategy involved and identifies the key ARARs associated with each alternative, and (2) a discussion of the individual criterion assessment. If Respondents do not have direct input on criteria (8) State (or support agency) acceptance and (9) community acceptance, these criteria will be addressed by EPA.

3. Compare Alternatives Against Each Other and Document the Comparison of Alternatives

Respondents shall perform a comparative analysis among the remedial alternatives. That is, each alternative shall be compared against the others using the nine evaluation criteria as a basis of comparison. Identification and selection of the preferred alternative are reserved by EPA. Respondents shall incorporate the results of the comparative analysis in the FS Report.

XI. TASK 10 - FEASIBILITY STUDY REPORT

A. Respondents shall prepare a FS Report consisting of a detailed analysis of the remedial alternatives, in accordance with the NCP as well as the most recent guidance. Within sixty (60) days after EPA's approval of the Development and Screening of Remedial Alternatives Technical Memorandum or the final RI Report, whichever is later, or such longer time as specified or agreed to by EPA, Respondents shall submit to EPA an FS Report which reflects the findings in the approved Baseline Risk Assessment. Respondents shall refer to the RI/FS Work Plan and the RI/FS Guidance and this SOW for report content and format. Within fourteen (14) days after submission of the FS Report, Respondents shall make a presentation to EPA and the State at which Respondents shall summarize the findings of the FS Report and discuss EPA's preliminary comments and concerns, if any, associated with the FS Report.

B. The FS Report shall include the following:

1. Summary of Feasibility Study objectives;
2. Summary of remedial action objectives;
3. Articulation of general response actions;
4. Identification and screening of remedial technologies;
5. Descriptions of remedial alternatives;
6. Detailed analysis of remedial alternatives; and
7. Summary and conclusion.

Respondents' technical feasibility considerations shall include the careful study of any problems that may prevent a remedial alternative from mitigating site problems. Therefore, the site characteristics from the RI must be kept in mind as the technical feasibility of the alternative is studied. Specific items to be addressed are reliability (operation over time), safety, operation and maintenance, ease with which the alternative can be implemented, and time needed for implementation.

C. EPA will approve the FS Report or otherwise respond in accordance with Section XI (Reporting and EPA Approval of Submissions) of the Settlement Agreement.